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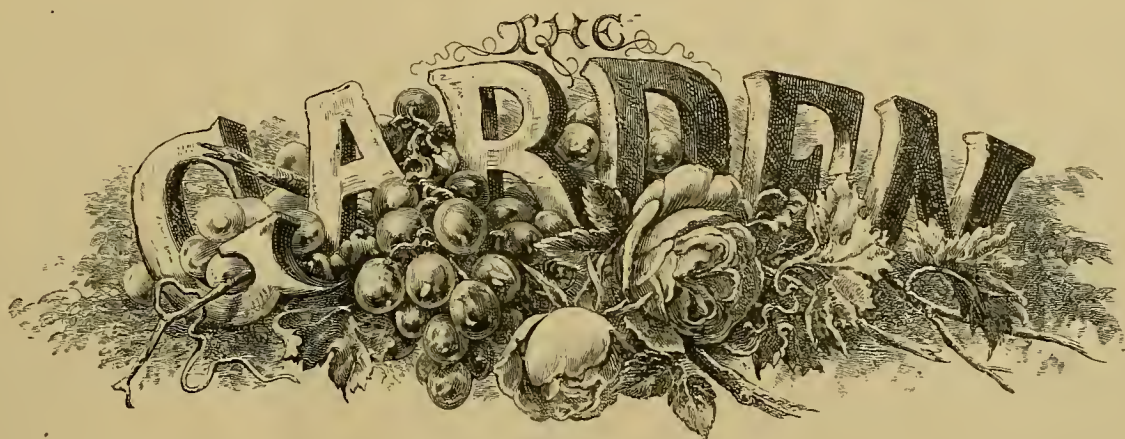






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— TO —

## LORD REDESDALE

THE SIXTY-SECOND VOLUME OF "THE GARDEN"

Is dedicated.

LORD REDESDALE to many will be better known as Mr. Freeman Mitford, the author of that excellent work "The Bamboo Garden," which has had a great influence for good in the making and altering of modern gardens. Through his enthusiasm the Bamboo has been planted with discretion in the gardens of these isles, and not the Bamboo only, but many plants that have been proved by experiment in Lord Redesdale's garden at Batsford Park to stand the vagaries of our peculiar climate.

It is through the efforts of such amateurs as he that English gardens are undergoing a welcome and delightful change, and that the beautiful things from other lands are having a proper place in their making.

Lord Redesdale was born February 24, 1837, and is the third son of Henry Reveley Mitford, Exbury, Hants, and Georgina Jenin, daughter of the third Earl of Ashburnham, and married in 1874 Clementine, daughter of the seventh Earl of Airlie. Educated at Eton and Christchurch, Oxford, he entered the Foreign Office in 1858, and filled many posts with honour. From 1892 to 1895 he represented South-West Warwickshire in Parliament.

Lord Redesdale was raised to the peerage on the occasion of the Coronation of His Majesty the King.

That Lord Redesdale may be spared many years to work in his garden, and experiment with the flowers he has seen during a long and active life in the service of this country in other lands, is the wish of every reader of this journal.

"The Bamboo Garden," a careful and practical study of a beautiful family, followed a series of papers on the same subject published in THE GARDEN, and gives not merely valuable information about planting and kinds, but is concerned with the economic importance of the Bamboo.

Lord Redesdale is one of the pioneers in modern gardening, and his beautiful garden at Batsford Park is a reflection of his good taste and wide knowledge.



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# THE GARDEN

No. 1598.—VOL. LXII.]

[JULY 5, 1902.]

## A FAMOUS SHOW.

**A**S we recorded last week, what is known as the "Coronation Rose and Flower Show" was held in the grounds adjoining the gardens of Holland House, by kind permission of the Earl and Countess of Ilchester. The weather was perfect, the show itself of great extent, and as beautiful and interesting as any exhibition of recent years; but the scene was shorn of its brightness by the grievous news that has sent a thrill of dismay and sympathy through the British Isles, and, indeed, the whole world.

The news came when the exhibition had just been opened, but too late for any record of it in last week's pages. Sympathetic references were made to the sad news by Mr. Gurney Fowler (in the absence of Sir Trevor Lawrence, Bart.), who presided at the luncheon to the committees on the first day, and by the Dean of Rochester, who was president of the conference on Roses held during the afternoon.

The exhibition, well worthy of the Coronation we all hoped so soon to celebrate, was visited by a large gathering of those deeply interested in horticulture, but the attendance would probably have been larger if His Majesty had not been suddenly laid aside by serious illness. The thoughts of the British Nation and of the nations of the world are directed to the Royal Family in their distress, and especially to Her Gracious Majesty the Queen, who, during the past few weeks has bravely undertaken the social duties of the King, knowing, we fear, that such a catastrophe as a sudden and dangerous sickness might supervene to turn joy to grief and postpone indefinitely a great and solemn celebration.

[It is with great gladness we learn from the last report that His Majesty may be considered out of immediate danger.]

The restfulness of the gardens of Holland House, the quiet and beautiful London home of the Earl and Countess of Ilchester, figured and described last week, and the flowers in the tents were a solace, under the circumstances, to those privileged to visit the exhibition, and a relief from the symbols of a nation's rejoicings in the streets of the Metropolis.

The Royal Horticultural Society's show will be remembered as one of the most remarkable in its history. The exhibits were rare and interesting, and those responsible for the arrangements and carrying out of the details that brought a memorable display to so happy

a conclusion must be heartily thanked for their efforts. The Rev. W. Wilks, the secretary, who is a splendid organiser and keen gardener, his assistant, Mr. Wright, amongst the number, and many others who helped in one capacity or another have reason to look back upon the "Coronation Rose and Flower Show" as an historical event worthily carried out. Of Roses there were few, but this was due to the vagaries of the English climate, not to want of encouragement, but their absence was atoned for by the superb miscellaneous displays from some of the principal nurserymen of the United Kingdom.

## THE ROSE GARDEN OF THE FUTURE.

**O**F all the branches of good work now being done in gardening none has a more hopeful outlook than the future of the Rose garden. Rose gardens there are, and have been for many years, but we may venture to say that the truly beautiful Rose garden has yet to be made.

Not only have the old garden Roses been newly found and put ready to our hands, but by careful and clever hybridisation quantities of beautiful new Roses have been produced. Even in the older days it was not so much that there was no way of escaping from the monotony of the standard or bush Roses, but that the better ways had not been pointed out, and that people in general had not thought of breaking through the narrow bounds. For even then there were the rambling Ayrshires, China Roses, Damask, Cabbage and Moss, and others of the old favourites, but for some reason, which now would be thought absurd, these were not considered Roses for Rose gardens, though it was no doubt because just the best methods of using them had not been made clear.

Now, with the wholesome growth of all good gardening, many new garden Roses have been produced, and now there are not only Roses for beds but Roses for bushy masses, for rambling into trees, for tumbling over banks and boulders, for crowning low walls, and Roses so various in habit that there are kinds to suit gardens that are in immediate connexion with the most refined architecture as well as those of the most modest cottage class.

Moreover it is not only that this wide range of material exists, but owners of gardens are

becoming aware that it should be intelligently and worthily used. Instead of a mental inertness as to the possibilities of the Rose garden there is now widely spread abroad an attitude of alert and intelligent anticipation and a keen desire to use our lovely Roses well.

## MAKING A VINE BORDER.

(Continued from Vol. LXI., page 435.)

By far the most important ingredient in the border is, of course, loam. The top spit of a pasture cut in the early autumn, stacked out of doors (placing a layer of good farmyard manure and a layer of turves alternately), and left outside during the winter, makes an ideal soil for a Vine border. It is, however, not all who are fortunate enough to be able to obtain this. Do not use turves freshly cut, for it may happen that the pasture whence they were taken is full of wireworms, and if these are imported into the Vine border it is a very difficult matter to get rid of them, and the damage they are capable of doing is considerable. If the soil has been exposed throughout the winter, as when it is placed in stacks, as mentioned above, many of these wireworms would perish or escape. Before commencing to make up the border all the soil necessary should be well prepared beforehand. First, chop the turves with a spade into about four or six pieces, then to each cartload of soil add three or four barrows full of brick and mortar rubble broken to about the size of pigeons' eggs. This is an excellent thing to mix in Vine borders, for it not only helps to keep the bulk of soil sweet and porous, but it encourages root action also. Loam varies very much in substance and character, some being quite of a clayey nature, while other again is porous and sandy. The former will, of course, require the addition of more rubble than will the latter. A good sprinkling of coarse river sand is also valuable, especially when the loam is at all heavy. It is also advisable to intermix a small quantity of some good artificial manure (such as Thompson's or Bentley's being good for this purpose); too much, however, especially when first making up the border, brings about most injurious results.

The thorough mixing of the compost must have attention, and to this end one could not do better than adopt the following plan: When all the turves have been chopped, throw the pieces into two heaps about two yards apart; then while two men (one at either heap) return the soil into one heap again, a third admixes the mortar rubble, sand, and manure as the work proceeds. The further mixing which will result from placing the soil in the border should suffice. When the three men are not available spread out the two heaps of soil and over them sprinkle the various other substances, then turn back the heaps into a cone-like form again, and finally turn one into the other. As the soil is gradually placed in the border make it firm by well treading it down. Make the surface higher than it was before, because the new border will be sure to sink to some extent. It should have been mentioned that if the soil were at all dry when the compost was mixed a good watering should have been given to it, not of course sufficient to make it sticky and unworkable, but just to moisten it thoroughly. When the border



is finished, if the layer of turves over the drainage was well watered with a hose-pipe when placed in position, as should be done, and the compost itself watered, then no further application of water will be necessary before planting.

It is very necessary to attend to these two details—the thorough watering of the turves and the moistening of the prepared compost. If the former are dry when placed in position it is almost impossible to soak them through afterwards without saturating the whole border, and even then one may not succeed. Dry turves, especially when covered by other soil, are most difficult to water thoroughly, and if they are allowed to remain dry they will ever be a source of injury to the roots of the Vine. Do not plant the young Vines for several days after the border is ready, when it will have an opportunity of sinking somewhat, and the soil will become settled and altogether in a state more congenial and suitable to the encouragement of growth on the part of the young Vine roots.

There are two kinds of Vine borders, the inside and outside, the one made under cover of the roof, the other outside the vinery. Where Vines are forced for the purpose of producing Grapes early in the season the inside border is advisable, for it is so much more under control than is the outside one, its temperature more nearly equal than of the house than that of the border out of doors could possibly be during the winter months, and therefore is better suited for the early start into activity of the Vine roots. But for Vines that are given practically cool treatment, whether the border be inside or out, does not make a very considerable difference. The inside border being perfectly under control can be correctly treated, but during wet weather for instance the outside border would probably receive a good deal more water than is really required. This can, of course, be protected from excessive wet by means of boards, and from frost by means of coverings of dead Bracken or straw litter. It will be seen, therefore, that, unless Grapes are required very early (say April and May), when an inside border would certainly be advantageous, it does not make any appreciable difference whether the Vine border be inside the house or outside of it, providing, of course, that it is thoroughly well drained and made and composed of the proper material. With reference to the matter of drainage, previously described at length, it should be stated that, whereas in an inside border the drain pipes would slope towards a main drain near the front of the house (the main drain carrying away the water to an outlet), in an outside border the drain pipes should slope away from the house, and, of course, also lead to a main drain along the front of the border connected with an outlet. A. P. H.

(To be continued.)

## OBITUARY.

### MR. SIMON DELAUX.

WE record with great regret the death of Mr. Simon Delaux, of Toulouse, which we have just heard took place at his residence at St. Martin du Touch, in the Department of the Upper Garonne, on the 8th ult.

When we remember the achievements of the deceased twenty years ago and more to improve the Chrysanthemum, when we also remember the great indebtedness to him that all lovers of that popular flower are under for the many beautiful novelties of Japanese Chrysanthemums that he raised and sent out in the eighties, we feel we should be wanting in respect to the memory of an illustrious worker in horticulture, who very largely contributed to raise the Chrysanthemum to its present high position as a show flower, if we failed to notice the sad event.

The volumes of THE GARDEN between 1880 and 1890 contain many references to his work, which at that time was perhaps most keenly appreciated by his English *confrères*. For a long period the seedlings of Mr. Delaux held a position of pre-eminence, in much the same way as those of his great rival (Calvat) have done since.

Growers of twenty years ago will remember the many useful additions that yearly came from Mr. Delaux's nursery, many of them rising to the highest possible position on our show-boards. A few names, all of the Japanese type, occur at once to our mind as indicating Mr. Delaux's success here in England, viz., Mme. Bertier Rendatler, M. Astory, Dr. Macary, Mme. de Sevin, Margot, Source d'Or, Jeanne Delaux, Japonais, Fanny Boucharlat, Bouquet Fait, Hiver Fleuri, Mme. John Laing, M. Freeman, Fernand Féral, M. Delaux Hamlet, and M. William Holmes, all of which, and many more besides, enjoyed a popularity amongst English growers that must have been, as we know it was, highly gratifying to the successful raiser.

Mr. Delaux was also a great raiser of novelties of the early-flowering section, which he did much to improve, and of which there are still many left in cultivation here in England. Such a success as his, of course, brought rivals into the field, so Mr. Delaux's novelties were gradually surpassed in favour, and the modern English grower perhaps scarcely knows him as we knew him in the happy days when the Chrysanthemum fever was first beginning to take a hold upon us.

The writer of this short notice can claim the deceased as his first Continental correspondent on matters relating to the Chrysanthemum, and yet, although the relationship was of the warmest and most friendly character, it was never his good fortune to make Mr. Delaux's personal acquaintance, in spite of the various visits to Continental shows, where almost every other celebrity in the Chrysanthemum world might be seen. The deceased was in his sixty-second year, and was a member of many well-known Continental horticultural societies, at the shows of which he had long exhibited with conspicuous success.—C. H. P.

### THOMAS YOUNG.

THE demise of venerable Thomas Young occurred recently after a protracted illness, from which he had several times rallied so strongly that hopes were entertained for his renewed health. Mr. Young was born in Eastbourne, Sussex, in 1818. He began his career as a gardener on the estate of the Duke of Devonshire. He went from there to Boddegan Hall on the island of Anglesea, North Wales, and thence to the Pine Apple nurseries of Messrs. Henderson. His next position was with Mrs. Lawrence at Ealing Park, and afterwards he was employed at Abernaut Park, Glamorganshire, whence, after fifteen years service, he came to this country in 1870. Throughout his career he gained and maintained a wide knowledge and celebrity as a gardener of high attainments, excelling especially in the difficult branch of Pine Apple growing. Personally he was jovial, hearty, and kindly, a perfect type of the old-time gardener, in love with his profession and honoured by his colleagues. He leaves a widow and a family of seven sons and daughters. Two of the sons, Thomas and John, are engaged in the flower business in New York City, John Young being also secretary of the New York Florists' Club. Two others, William and George, are Rose growers at Clifton, N.J.—*American Florist*.

## TREES AND SHRUBS.

### HARDY AZALEAS AT KEW.

MANY years ago the hardy Azaleas at Kew formed the most attractive spring feature, and though, owing to the increased attention given to hardy plants in general, there are now several other subjects for which the pride of place might be claimed, the Azaleas still hold their own as furnishing one of the most popular displays. The majority of the plants at Kew are old bushes, and consequently the varieties are not of the present day; indeed, some of them probably date from Loudon's time, when an extensive list of hybrid forms was in existence. Most of the older varieties were obtained by the crossing and intercrossing of the North American

*A. nudiflora* and *A. calendulacea* with *A. pontica* from the Black Sea region, but the introduction of other species has led to the formation of quite a different class: in fact, nearly all the forms met with at the various exhibitions (and which formed such a blaze of colour at the recent Temple show) owe their origin to the more recently introduced *A. chinensis*, or *mollis*, as it is generally called. Besides this the Californian *A. Vaseyi* has proved to be a valuable introduction, while the later flowering *A. occidentalis* has been used in the production of varieties that serve to extend the hardy Azalea season. For all this I must confess to a leaning towards some of the older varieties, whose scarlet and orange-scarlet tints are not represented among the members of the *mollis* section. True, if the flowers are looked into individually the newer kinds are far larger and more massive, but the Honeysuckle-like blossoms of some of the older forms present a light and elegant appearance, which is heightened by the pleasing informal outline of a specimen that has been allowed space for its full development. All, new and old alike, are, however, so charming that, given a suitable position, everyone is worthy of a place in most gardens. Their beautiful effect at Kew is heightened by the fact that the space where they are grouped is a large open glade, surrounded for the most part with tall trees, which with their freshly expanded foliage serve from nearly all points as a delightful background for the bright blossoms of the Azaleas. To anyone acquainted with the display that in days gone by used to be furnished by the hardy Azaleas in the nursery of the now long defunct firm of Messrs. Osborn, of Fulham, the extension of London in all directions is answerable for much. Still, with the increased facilities for travelling Kew is much more accessible than was formerly the case, and great numbers take advantage of the Azalea season to visit that delightful portion of the grounds where in close proximity to the Azaleas themselves their near allies the Rhododendrons are also ablaze with colour. One thing not to be overlooked in any notice of hardy Azaleas is their delicious spicy fragrance. H. P.

### RHODODENDRON RHODORA

(*RHODORA CANADENSIS*).

THIS is an April flowering shrub that is not grown nearly so much as it might be, but possibly the colour of its flowers has something to do with its unpopularity. The colour is variously described by different authorities, rosy purple being the commonest, but it is more of a magenta or magenta-purple than anything else.

*R. Rhodora* is a native of North America, and forms an upright, deciduous shrub, 3 feet to 4 feet in height, with slender, twiggy wood, clothed with small ovate-lanceolate leaves. The flowers appear in April before the leaves expand, and are borne in terminal clusters of from three to six flowers in each. The calyx is green and inconspicuous, and the corolla divided nearly to the base into three parts, the upper one of which is twice the size of the other two and thrice cleft at the tip.

It is easily forced, plants taken up in February and potted coming into bloom by the middle or end of March if brought on in gentle heat, though the flowers lose somewhat in colour if kept too warm. By simply putting them into a cold house they will flower a fortnight or three weeks earlier than they do outdoors and the colour be quite as deep. Like *Azalea amena*, *R. Rhodora* can only be associated with white or very pale yellow, but it is best arranged in a mass by itself relieved by some light foliage.

The plant grows best on a moist peaty soil, and does not do at all well in a place that is dry or sandy, which probably accounts for the failure to grow it in many places. I have heard it stated that this shrub is not hardy, but I have never seen it injured by frost, the flowers even withstanding spring frosts without injury, its only requirement being a cool moist soil and situation. It also succeeds well in partial shade. It is easily propagated by seeds or by layering.

Bagshot, Surrey.

J. CLARK.



## MAMAN COCHET AND ITS WHITE SPORT.

WHEN seen at its best Maman Cochet appears to eclipse all other Tea Roses in beauty. The flower attains a wonderful size. Except for a faulty habit of splitting or producing divided blooms this Rose is unequalled. It is not a cool season Rose, but requires plenty of sun to develop its beauty and to bring out the freshness of colour and yellow shading. At times it fades to a dull rose, but we can well afford to overlook its faulty ways and only remember what a useful all-round variety it is. The growth is splendid, strong and stout shoots being freely produced. I think I prefer to grow this Rose on standard or half-standard Briars. There seems to be a fresher tint of colour in blooms so produced. As a pot Rose Maman Cochet is magnificent, more especially in a cool house. It does not compare with Bridesmaid or Catherine Mermet for forcing or for cutting, but for beauty it surpasses both.

The white or rather creamy white sport is delightful, and when in autumn its lovely blossoms are faintly tinged with blush pink it would be difficult to find another Rose to equal it.

As garden Roses both varieties are almost equal to the Hybrid Teas in vigour; in fact, some rosarians have been disposed to group these two with the Hybrid Teas, but I do not think they would be justified in doing so.

Neither kind should be hard pruned. The flower being so large, it is capable of remarkable development by affording the plants some phosphates such as bone dust, and by adopting a thorough system of disbudding both of flower and shoots.

PHILOMEL.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

July 8.—Royal Horticultural Society's Committee meet, Drill Hall, Westminster; Dinner of the Horticultural Club at 6 p.m. (guest of the evening, Mr. H. N. Arderne, of The Hill, Claremont, Cape Town); Wolverhampton Horticultural Fête (three days); Gloucester Rose Show; Harrow Rose Show.

July 9.—Beckenham Summer Show; Farningham, Ealing, Formby, Hereford, and Stevenage Rose Shows.

July 10.—Woodbridge Horticultural Show; Bath and Eltham Rose Shows.

July 19.—National Rose Society's Northern Show, Manchester.

July 22.—Royal Horticultural Society's Committee meet, Drill Hall, Westminster; Tibshelf Rose Show.

**The Tree Lupines.**—Considering the ease with which these may be raised from seeds or propagated by cuttings, it is disappointing to find that the Tree Lupines are so little met with in gardens. One hopes, however, that the introduction of some new varieties may help to bring them into further notice in the eyes of garden lovers. Compared with the effect this plant produces, the obstacles to its cultivation and its defects are few. It is true that it is not very hardy, and that it has an unaccountable habit of dying off, even if it has survived several winters. Young plants, however, seem wonderfully hardy, and I think that the old ones which go off are lost mainly through natural decay, for, in this climate at least, the Tree Lupine is not as a rule a long liver. The oldest plant I have ever grown was some five or six years of age, and latterly it had begun to look as if it were time it was replaced by a younger and more vigorous successor. This can be easily done, as a few seeds, sown either under glass in March or in the open in April, if not done as soon as ripe, will give flowering plants in a year or two. In some gardens, indeed, it is hardly necessary to sow seeds, as self-sown seedlings will generally appear in these places to prolong the succession of plants. In June and for some time afterwards there are few more ornamental things in the garden than a large bush covered with its fine spikes of flowers. I prefer to

grow it as an erect bush, and for this purpose it must be fastened to a stake for support. Some again like it best against a wall, while others allow it to grow in an almost prostrate fashion, one which it is inclined to assume if left alone, though it may be pegged down with advantage. The Tree Lupines like a warm and rather sandy soil, and ought to have a sheltered position when grown as a bush, as their branches are very brittle at their junction with the stem. While the typical *Lupinus arboreus* is of a pleasing yellow, there are now a considerable number of other colours and shades. These do not come quite true from seeds, and to preserve any special colour it is well to propagate a few cuttings annually. This is easily effected, either by cuttings of the current year's growth or by the same with a heel of the old wood attached. I prefer the latter, and these strike in a shady border if put in in summer with or without a glass over them. The flowers of the Tree Lupines are described as fragrant, but the odour is a little too overpowering for some when in a confined space. As garden plants these Tree Lupines are remarkably handsome, and the shades of yellow or lilac given by the flowers are often very pleasing, though many prefer the white flowers of the pretty variety named Snow Queen.—S. ARNOTT.

**Ireland—Industrial and Agricultural.**—This the most important work on the economic resources of Ireland issued for many years, is being published under the supervision of the Department of Agriculture and Technical Instruction for Ireland. The material for the work was originally brought together for the purposes of a handbook issued in connexion with the Irish Pavilion at the recent Glasgow Exhibition. The present issue in permanent form is, however, to all intents and purposes, a new work. Over 200 pages of new matter have been added, and the whole book has been thoroughly revised and brought up to date. Messrs. Browne and Nolan, Limited, Nassau Street, Dublin, are the publishers.

### "Hand-list of Herbaceous Plants."

—We have received the second and much enlarged edition of this useful hand-list. These lists, issued by the Director of the Royal Gardens, are of immense value, and it is not surprising to find that they are quickly out of print. The Director's preface contains the following interesting remarks: "The first edition of the Kew Hand-list of Herbaceous Plants having met with a ready sale, has long been out of print. A new edition has been for some time in preparation. Meanwhile the interest of the public in the intelligent cultivation of herbaceous plants, the kindness of numerous correspondents and the aid of other botanical establishments at home and abroad has enormously stimulated the growth and enlarged the scope of the Kew collection. It has been found convenient to include in the present edition the shrubby alpinas which are cultivated in the Rock Garden in association with strictly herbaceous species. . . . The total number of distinct named plants enumerated is about 8,000; of these about 1,000 are reckoned as varieties." The price of this edition is 1s. 9d., and only sold at the Royal Gardens.

**Messrs. Sutton and Sons' annual excursion.**—For many years Messrs. Sutton and Sons, Reading, have not only given the whole of their employé a yearly holiday, entirely at their own charges, but have, by the presence of members of the firm and personal supervision of every detail, done everything in their power to make the annual trip a day of perfect enjoyment. The party took their places in the special train for Portsmouth, which left Reading at 7.10, and arrived at Portsmouth Harbour to the minute at 9.15. Accompanying the train were Mr. Martin J. Sutton, J.P., Mr. Arthur W. Sutton, J.P., Mr. Leonard G. Sutton, and Mr. M. H. Foquet Sutton, with members of their families. The promise of the morning was not belied, the weather being most pleasant until about one o'clock. The return train reached Reading at 10.2 p.m., and all went happily homewards, having passed a day of perfect pleasure and relaxation.

**The National Rose Society's Show.**—The annual exhibition in the Inner Temple Gardens took place on Wednesday last,

and a full report is given on another page. It was not a striking display, for the good reason Roses are so late this year that the late exhibitions will be more interesting and the classes better filled than those that are now taking place. The show in the Manchester Royal Botanic Gardens will probably be one of the best of the series; it takes place on Saturday, the 19th inst.

**Mr. A. B. Freeman-Mitford, C.B.,** who has been raised to the peerage, is one of the best known authorities upon the Bamboo, and "The Bamboo Garden," which appeared in 1896, was first published in THE GARDEN. But Mr. Mitford has played many parts. Amongst his works are "Tales of Old Japan" and "The Attaché at Peking," and his garden at Batsford Park, Moreton-in-the-Marsh, is one of the most interesting in England. He is a trustee of the Wallace collection, entered the Foreign Office in 1858, appointed to Peking in 1865, second secretary of Legation in Japan in 1868, secretary to H.M.'s Office of Works from 1874 to 1886, was M.P. for South-West Warwickshire from 1892 to 1895, and has held besides these other offices in his busy and useful life.

**Aquilegia Stuarti.**—The illustration of A. Stuarti on page 409 is splendid. I have grown



ROSE MAMAN COCHET.

(Original was more than twice the size of flower represented.)

it well for many years, but never better. I have had 60 or 70 flowers on a plant. Why it is not more extensively grown I cannot imagine, as it is one of the loveliest flowers I know, and is as easily cultivated as the ordinary variety. There is, however, one most important matter respecting its cultivation, and this has induced me to say something about it. It should never be planted when dormant. Autumn planting is bad, and spring planting is also very risky. To ensure success, young plants well established in pots should be secured; if these are planted now they will flower well next season.—AMOS PERRY, Winchmore Hill, London, N.

**Raphiolepis japonica.**—This is now regarded as the correct name of the pretty little shrub so long grown in gardens as *Raphiolepis ovata*, for the introduction of which we are, I believe, indebted to Robert Fortune. It is a very distinct evergreen, naturally of sturdy growth, clothed with very dark green, broadly ovate, stout, and leathery leaves, each from 2 inches to 3 inches long. The flowers, which are just now at their best, are borne in erect terminal panicles. Individually they are somewhat Hawthorn-like, pure white in colour, and pleasantly scented.



The deep green of the foliage serves to intensify the whiteness of the blossoms. This *Raphiolepis* is a well known though not common shrub. It is not sufficiently robust to hold its own with many subjects frequently planted, but where a space is set aside for choicer subjects that can be depended upon not to encroach upon their weaker neighbours it is one that can be recommended for such a purpose. A second species, *R. salicifolia*, known as the Indian Hawthorn, needs the protection of a greenhouse, where it usually flowers during the winter months. The white flowers are borne in short terminal panicles, with a reddish centre. Both of the species above mentioned may be struck from cuttings of the half-ripened shoots, put in sandy soil, and placed in a close propagating case with a gentle bottom heat, for, though they usually stand some time, failures as a rule are not many.—H. P.

**Pentapterygium serpens.**—Visitors to Kew during May and June must have often been impressed by the beauty of this charming Himalayan shrub. For many years a large plant stood at the north end of the Cape house, where it never failed to flower freely. On the completion of the Himalayan house it was, however, moved there and planted on a rootery. It has since grown vigorously, and now makes a fine group, the long, arching shoots clothed with small green leaves and pretty scarlet netted flowers being very pleasing. It was sent to Kew by Mr. Elwes, who found it whilst travelling in the Himalayas about eighteen years ago. In its native habitat it grows on the trunks of trees and in other places where a little light, rich matter, such as decayed leaves, is to be found. It is peculiar by reason of its large, flattened, woody rootstock, from which the slender branches grow. At Kew the branches are 4 feet or 5 feet long; the leaves are small, lanceolate, and thick, the stems covered with a fine brown tomentum, and from the under side the scarlet pendulous blossoms, upwards of an inch long, are borne in profusion. It roots readily from cuttings, and may be grown either in well-drained pots or borders. Like *Rhododendrons*, it loves rich, loose sweet soil and plenty of fresh water whilst growing. It may be grown in a cold greenhouse or frame, and will flower annually.—T.

**Rhododendron Smithii aureum.**—One of the most beautiful and at the same time one of the most interesting of the *Rhododendrons* at Kew is this hybrid form, which, though quite an old plant and such a meritorious one, may be sought for in vain in most nurseries. Its parentage, according to the Kew List, is *Rhododendron* seedling crossed with *Azalea siuensis*—that is to say, a hybrid between an evergreen and a deciduous kind. It is of a weak habit of growth and flowers freely when not more than 2 feet high. The flowers, which are borne in rounded clusters, are of a pleasing shade of buff-yellow, with the upper segments marked with orange. Though much the same tints may be found in some of the *Azaleas*, there is an air of refinement about this hybrid. It is well worthy of being taken up by some of our tree and shrub nurserymen, who all speak of an increased demand for the better class of flowering shrubs. It is not the only hybrid between an evergreen and a deciduous kind, one of the oldest and best known being *R. azaleoides*. According to London this is a hybrid between *R. ponticum* and some species of *Azalea* with fragrant blossoms. It is as a rule at its best about mid-summer, at which time the bushes are profusely laden with pretty, highly fragrant flowers, which latter feature is very noticeable on a sunny day. The blossoms are not all of the same tint, varying as they do from very pale lilac to a sort of lilac-purple hue, but in most cases the edges of the petals are of a deeper tint than the centre of the flower. The plant naturally forms a compact rounded bush, while the foliage is sub-evergreen in character. Other hybrids of this class are *R. gowenianum* and *R. gemmiferum*, this last bearing very compact rounded heads of blossoms of a deep rosy pink hue.—T. [*R. Smithii aureum* was very beautiful a few days ago in Mr. Loney's interesting American garden at Saltwood, near Hythe. A large bush of it was laden with flowers.—Ed.]

**Mesembryanthemum lacerum.**—As a pot plant this fine succulent, when well grown, is at all times pretty and interesting from its pale glaucous keel-crested leaves. The large solitary flowers, 2 inches in diameter, are now open, and are of an unusual shade of chamois-pink, which deepens into orange in the centre of the full-petalled flower, the narrow leaflets of which have the peculiar Catherine wheel-like twirl which may be observed in the flowers of several other species of the genus. *Mesembryanthemums*—which may be translated into Noon-flowers if it is preferred to avoid the Latin name—used formerly to be very popular, and one or two free-flowering kinds were grown for market by the hundred in Haworth's time. They have fallen into disrepute mainly because their management is not well understood and from a mistaken choice of species. The one now under notice may be found sometimes in a botanical collection, and not always well grown even there, but otherwise it is seldom met with. It is not perhaps so showy as some of the smaller-flowering kinds, such as the bright mauve-coloured *M. polyanthum* and the orange-scarlet *M. bicolor*, which make up in brilliancy and number for the small size of their flowers, but a two year old plant of *M. lacerum*, pinched back to make it break into several branches and to prevent legginess, or even a potful of last year's cuttings well ripened by full exposure to summer sunshine, will give very satisfactory results. When once fully expanded the flowers remain open, in which particular they resemble those of *M. inculdens*, but, as their name seems to indicate, most of the species have their set time for opening and closing. As a rule, though it is not a hard and fast one, young plants flower the best, and after the second season had better be discarded. One reason, indeed, why *Mesembryanthemums* are not so much in favour as they used formerly to be is because it constantly happens that old and worn-out plants are retained which are perfectly useless. Out of 300 or more known species it is not to be wondered at that a good many are not decorative, but there are few plants which will give, under proper treatment, so great an amount of enjoyment in their unique brilliancy of flower and quaintness of leaf form, with a minimum of trouble, as some of the best kinds of this now neglected race of succulents, which are specially valuable for a window, glass porch, or cool greenhouse.—K. L. D.

**Rhododendron indicum var. Hexe.**—Among the large number of varieties of *Rhododendron indicum*—or as it is often called in gardens *Azalea indica*—this is one of the most beautiful, and is very easily cultivated. For the amateur who experiences some difficulty in furnishing a small greenhouse with plants that will stand the winter with little or no fire-heat this plant is to be recommended, as it is almost hardy; the mere protection of a glass roof is sufficient to keep it in a flourishing condition. Grown from cuttings it flowers in quite a small state and increases in width more rapidly than in height. The flowers are hose-in-hose fashioned, nearly 2 inches across, deep rose, and borne in such profusion as to almost smother the plant, the bright green leaves peeping out here and there among the mass of flowers. At Kew it may be seen growing in a border in the Himalayan house, where it makes a bright splash of colour. It flowers equally well planted out or in pots, and is one of the easiest of the *Rhododendrons* to root from cuttings.

**Treatment of Cannas.**—I have seen so many poor specimens of *Cannas* growing even in well-managed gardens that I made some enquiries, and I find that many gardeners leave the plants in a rough state under the greenhouse stage all winter and do not divide and pot them up till the spring, while others go to the other extreme and keep the plants growing freely in a warm house which, of course, exhausts them. We began to grow a few plants of *Cannas* three years ago, and though we did not know their requirements managed to hit on the treatment they seem to like. In October they are taken from the open ground and at once

carefully divided and repotted, keeping them in a cool house all winter, and giving only a little water occasionally. After hardening them off they are planted out in June, and though the soil is naturally poor and the garden draughty, they begin to grow at once, and each plant flowers continually the whole summer. Our original stock has increased to five times the number we started with in 1899.—E. C., Surrey.

**Climbing Roses in the Drip.**—Here *Aglaia*, grown on and above a western fence with its boughs hanging down with clusters of bloom, has suffered least of any. The full yellow blooms which come on the bunches have during the last fortnight scarcely felt the drip. They have a lovely Tea Rose scent. Their beauty is enhanced by the dark shiny foliage of *Jersey Beauty* which has run up alongside, and the two grow with their long shoots entwined, but the latter will not be in bloom for some days. *Gustave Regis* looks in on the first floor window with its large blooms, and these have scarcely felt the wet. *Carmine Pillar* which has run up to the eaves is a mass of bloom, but just as it closes every night, it has seldom had its blooms wide open in the day, which spoils the effect somewhat. *Crimson Rambler*, *Psyche*, and the single and double *Himalayas* are not yet thinking of blooming.—J. R. D., Reigate (June 25).

**Iris graminea.**—This, a very old species from Austria, can be recommended to those who appreciate *Irises* of dwarf growth and bright colouring. It forms a tuft of glossy, grass-like leaves a foot high and a foot through, studded with flat violet-purple flowers  $2\frac{1}{2}$  inches to 3 inches across with erect violet standards, paler style branches and gaily pencilled scoop-shaped falls, much resembling the lip of *Epidendrum inversum*, a well-known Jamaican Orchid, the markings being violet on a white ground colour. There is a quiet charm in this little *Iris* that one generally finds in many species of the bulbous group, and it is safe to say that *Iris graminea* would be greatly appreciated if it did not flower at the same time as the pallida, neglecta, aphylla, and germanica types now almost universally called varieties of *I. germanica*. As it is, one must not neglect *I. graminea* on any account, its form and colour markings being unique. Its wants are simple and easily satisfied—a partially shaded aspect and a moderately stiff soil, not too wet in winter, is all it requires. It is best to plant it where it can remain for years, for like most grassy *Irises*, it dislikes frequent disturbance.—G. B. MALLETT.

**Notes from North-East Scotland.** In spite of the bad weather we have experienced, all the *Brooms*, *Azaleas*, *Rhododendrons*, and *Lilacs* have flowered splendidly. Of *Lilacs* the double white *Mme. Lemoine* has earned an extra good mark. Some years ago I bought a grafted plant of this variety, and soon saw that, as is usual with *Lilacs* that are grafted, it was not going to do very well. I therefore took some cuttings of the young shoots in the spring. These I placed singly in small pots of sandy soil and plunged them in a bed of moist sand in an intermediate house, where there was a little bottom heat, and covered them with a bell glass. Every cutting struck, they were potted on as required and hardened off, but were wintered in a cool house. They were planted out the following spring as soon as all danger from frost was over. They are now four years old from the cutting, from 5 feet to 6 feet high, and covered with immense bunches of flowers. They get a good dose of liquid manure once or twice every spring. As usual, the first Rose to flower is *Rosa alpina*, a single red-flowered species.—N. B.

**"The Book of the Rose."**—"N. B.," in his article on gardening books, places "The Book of the Rose," by Foster-Melliar, in his third list of books. I would venture to suggest that it should have gone in the first list. It is eminently practical, and although the author avows that he thinks *Roses* should be grown for exhibition, still the information given is such as to make me (not an exhibitor) often regret that I had not the book several years before I did. I should have been saved much groping and many disappointments. The chapter on "Manners and Customs" is invaluable, and, as far as I know, unique.—C. L. A.



**Green Asparagus.**—What is usually called "green" Asparagus is much appreciated as a rule, and doubtless its flavour is better than the white, but there is more trouble to get large green Asparagus early in the season, as owing to our erratic climate one cannot expose the growth sufficiently to get the heads thoroughly green, because of severe cold. Whilst the home-grown produce is required in a green state—at any rate, a good portion of the growth—the imported Asparagus is white and not objected to. Although large, it is not nearly so good as the home-grown. Now the difficulty in getting the grass green is that if exposed too long it soon shoots up, and is weakened if left at all long. To get fine heads there should be daily cutting over. Give a liberal depth of soil, the latter not too heavy, and ample room for the plants. I have seen many poor beds of Asparagus because the roots were too near the surface, and, though I do not advise too deep planting or sowing at the start, I give liberal top-dressings afterwards of suitable soil to get fine heads and "grass" of good length.—G. W. M.

**Two good Euphorbias.**—The fine effect of some of the hardy Euphorbias has been specially brought under notice this year, and two of them may well be recalled to the minds of those who have occasion and opportunity for taking somewhat broad views of planting and grouping. A bold mass of *Euphorbia palustris* planted by the waterside was singularly bright in the early days of May, when its flattened heads of green-gold flowers were in perfection. It grows to a height of 2 feet or more, and can be seen from afar lighting up the distant view. The other, *E. Wulfeni*, a fine Dalmatian species, has only found its way within the last year or two into English gardens, and may still be called a new plant. While the flowers of the above-named *E. palustris* are bright green-golden, the immense heads of *E. Wulfeni* may rather be described as golden-green of a peculiarly deep tone. The foliage resembles that of the familiar *Caper Spurge* (*E. Lathyris*), and the plant grows to a height of from 5 feet to 6 feet. The contrast of the blue-green leaves and the gold-green of the inflorescence is unusual. Few people could see for the first time a well-grown specimen of *E. Wulfeni* with many branches, each crowned with its towering terminal raceme, without pausing to make further acquaintance with so noble a plant, and those who are on the alert for massive subjects to give good pictorial effect will be grateful for so grand an addition to their open air resources. Cuttings strike without much difficulty, and a single stem will give a fine head of bloom not to be despised for some positions in the herbaceous border.—W. DALLIMORE.

**Calceolaria amplexicaulis.**—You do well to call attention to this charming plant for use in the garden. The late Mr. Wildsmith knew its value and grew it freely. From there I had it and flowered it annually in masses for many years. Mr. Beckett at Aldenham, too, knows its worth, as he grows a quantity, and perhaps better than any I have seen elsewhere. With him it runs up 4 feet high, and flowers profusely. A few light stakes to support the shoots are necessary.—E. MOLYNEUX.

**Tamarix tetrandra.**—A few weeks ago attention was directed in THE GARDEN to the great beauty of this Tamarisk, and to the fact that its merits are not half enough recognised by planters, probably in many cases at least owing to the fact that it is usually regarded as essentially a seaside plant, whereas it is really equally at home inland. The writer of the above-named article, Mr. Goldring, advocated the planting of this Tamarisk in an isolated lawn group or bed, and so treated there is a grand display of it at Kew; indeed, it forms one of the most beautiful features there among hardy shrubs. The flowers, which are borne in axillary spikes for a considerable distance along the slender shoots, are of a pleasing shade of pink, and seen from a distance are cloud-like. The group at Kew, consisting of a score or so of bushes ranging in height from 4 feet to 6 feet, each specimen just standing clear

of its neighbour, shows this Tamarisk at its best, and it will doubtless be copied by some at least of the visitors who note its great beauty, for this Tamarisk is by no means expensive, and cuttings of it root very readily in a fairly moist soil. When planted in this way the long straggling shoots should be pruned back to keep it in bush form, though there are situations where it is more effective if allowed to go unpruned, such as when in close proximity to water.—H. P.

**Hampstead Heath and the proposed railways.**—Miss Emily Field and Mr. Henry F. Pooley, hon. secretaries of the Hampstead Heath Protection Society, write: "The Hampstead Heath Protection Society desire to call public attention to their attitude with reference to the above Bills. They opposed these Bills before the committee of the House of Lords so far as the Bills propose to sanction tunnelling under any part of the Heath, but the committee declined to admit their *locus standi*, and refused to permit their counsel to argue the question. The only course now left open to the Hampstead Heath Protection Society is to take action with a view to ensure a discussion on the Bills when they come before the House of Commons for second reading. They remain convinced that notwithstanding any clauses, however stringent, which may be inserted in the Bills, the construction of an underground railway under the Heath must necessarily lead sooner or later to communications with the surface, either for the purpose of ventilation, or for stations, or for both, which will cause irreparable injury to the Heath. They urge further that Parliament should, in accordance with the recommendation of the Board of Agriculture made in their report of February 25, 1902, require the promoters of the railway to show that it is impossible that any material injury to the surface of the Heath will be caused by the proposed railway.

**Pimelia ferruginea.**—With the introduction of so many soft-wooded, quick-growing greenhouse plants a large number of pretty, slow-growing, woody subjects, which were at one time very popular, have almost dropped out of cultivation. Among these plants are the *Pimelias*, for although in a few places they are still grown, it is the exception rather than the rule. The one under notice is exceptionally pretty, being of more compact habit than some of the species, and has numerous pairs of small dark green, Box-like leaves and heads of deep pink blossoms in May and June, the heads of flowers being upwards of 1 inch across. In the Temperate house at Kew it may be seen in flower. Like other *Pimelias* it does not require much heat to grow it. Given a light, airy house, with a cool ash bottom and very little or no fire-heat, except in the very coldest weather, it will thrive. It should be grown in thoroughly drained pots in a mixture of two parts sandy, fibrous peat to one part of good loam, and must on no account be over-potted. Throughout winter watering must be done with great care, as extremes are very detrimental. Like other *Pimelias* this is a native of Australia.—W. D.

**Waterer's Laburnum.**—Those who only know the ordinary Laburnum of gardens should get Waterer's form. Its correct name is *Laburnum alpinum* var. *Watereri*. Like the common Laburnum the species is an European one, but has a longer and looser inflorescence and shorter, winged seed-pods. In the variety under notice the flower racemes are of exceptional length, averaging 1 foot long and bearing some 50 or more flowers each. There is also a variety of *alpinum* in cultivation called *Parksii*, which bears even longer inflorescences, some having been measured 19 inches in length. In this, however, the flowers are further apart, and it does not flower so freely as Waterer's variety.—B. T.

## BRITISH-RAISED ROSES.

ONE of the leading rosarians of the day has compiled the following list at our request: A glance at the subjoined list of British-raised

Roses will, perhaps, surprise those who imagined that we were largely indebted to other lands for new varieties. In this list are the names of many of the favourite varieties of the day, and from all appearances Britain will continue to hold her own and even surpass other countries in this respect. One of the earliest of British-raised Roses is the still popular *Devoniensis*, introduced in 1838, and it was some twenty-four years following that *Beauty of Waltham* appeared. John Hopper, too, was of this same year. The year 1863 was rather a barren year, Lord Macaulay being the best novelty. In 1868 rosarians were delighted with a most brilliant Rose in the Duke of Edinburgh, and five years later by its offspring named after the venerable president of the National Rose Society. One of the first English-raised Hybrid Teas, namely, *Cheshunt Hybrid*, appeared in 1873, and it is remarkable that the same relationship on one side is claimed for this variety as in the case of *Caroline Testout*. We refer to *Mme. de Tartas*. In 1875 *Star of Waltham* was ushered in, followed the next year by a most useful garden and forcing Rose—*Magna Charta*. In the years 1879 to 1881 were introduced *Duchess of Bedford*, *Lady Sheffield*, *Moss Little Gem*, and *Pride of Waltham*. An epoch-making year was 1882, for it was then that the late

### MR. HENRY BENNETT

gave us *Lady Mary Fitzwilliam*, a Rose destined to be the forerunner of a remarkable collection of Roses directly or indirectly, and perhaps unequalled by any other kind as a seed or pollen parent. The same raiser also introduced the lovely *Tea Princess of Wales*. The year 1883 produced *Queen of Queens*, a beautifully formed Hybrid Perpetual of the *Victor Verdier* race. In 1884 a lovely Hybrid Tea appeared in *Grace Darling* and a very useful Hybrid Perpetual, *Charles Lamb*, but it was reserved for 1885 to produce the sensational Rose of the decade, namely, *Her Majesty*, and the same year the valuable crimson autumnal *Waltham Climbers* were introduced.

From an English point of view *Viscountess Folkestone* may be described as the Rose of the year 1886, but in 1887 Mr. Bennett produced his masterpiece, *Mrs. John Laing*, a flower as yet unrivalled, and he also gave us a charming show Tea—*Princess Beatrice*. This was also the year of the Earl of Dufferin and *Ethel Brownlow*. In 1888 appeared *Sir Rowland Hill*, the purple sport of *Charles Lefebvre*, and also *Marchioness of Lorne*, a Rose of undoubted merit not yet sufficiently recognised. Until this time we had mainly relied upon French raisers for our choicest Tea novelties, but succeeding years proved that we could produce a few good kinds of this tribe; notably, *Cleopatra*, *Sapho*, and *Souvenir de S. A. Prince* in 1889, and *Medea* in 1891. *White Lady* was shown in 1890, and a break was made in Moss Roses in the form of *Crimson Globe*, a variety fairly well mossed, and in bloom almost of show size. *Margaret Dickson* was of the year 1891, also *Salamander* and *Mrs. Paul*, all three gold medal Roses. In 1892 appeared that fine dark sport of *Etienne Levet*, namely, *Duke of Fife*, and the very double Hybrid Perpetual *Rose Spenser*.

In 1893 we had the commencement of what has eventually proved to be a very popular race of Roses, namely, the *Ramblers*. Although of Japanese origin, *Crimson Rambler* was of English introduction, and I question if any cultivated Rose has ever had such a distribution as this one. This same year Messrs. William Paul and Sons' *Corinna*, Mr.



Bennett's Captain Hayward, and Messrs. Dicksons' Marchioness of Londonderry and Jeannie Dickson proved that we were not asleep, and in 1894 Lord Penzance gave us his nine varieties of hybridised Sweet Briars, followed the next year by seven other kinds, all of which have received a warm reception, and acknowledged to be a great boon to our gardens. Clio, Mrs. Sharman Crawford, and Clara Watson yet further gave the year 1894 a very prominent position in our Rose history. In 1895 another remarkable variety appeared, namely, Mrs. W. J. Grant; and Helen Keller, Sylph, and the beautiful Carmine Pillar were also of this year. Tom Wood and Rev. Alan Cheales were the novelties among Hybrid Perpetuals for 1896, and two well-known decorative Roses—Queen Mab and Enchantress—were first distributed this same year. In 1897 a unique Tea Rose in point of colour appeared, namely, Empress Alexandra of Russia. The invaluable climbing sport of Kaiserin Augusta Victoria appeared this year, and two very good Hybrid Perpetuals, namely, Waltham Standard and Laurence Allen.

Three lovely decorative Teas and Hybrid Teas were Ireland's contribution in 1898, namely, Killarney, Beryl, and Meta; whilst from Waltham Cross we received the exhibition Tea M. Ada Carmody and a Hybrid Tea Aurora; and from Cheshunt two very lovely single or semi-double Roses—Dawn and Royal Scarlet. A most useful Hybrid Bourbon was also of this year, namely, Purity, from Messrs. Cooling.

Six first-rate novelties appeared in 1899. Of these three were Hybrid Teas, Tennyson, Bessie Brown, and the splendid Climbing Belle Siebrecht. Tea Roses were enriched by the addition of Mrs. Edward Mawley, and for forcing by Sunrise, and exhibitors welcomed the Hybrid Perpetual Mrs. Cocker as being a good lasting flower, and also Ulster. A very distinct Rugosa atropurpurea appeared this year. A grand forcing Rose, namely, Liberty, was the production of 1900, and three garden Roses, Corallina, Sulphurea, and The Alexandra. A useful Rose, J. B. M. Camm, was also of this year, and a distinct break in garden Roses, the lovely hybrid of *Rosa canina*, Una. Last year the sensational novelty was Mildred Grant, and a most decided acquisition to show Teas is Boadicea. Decorative Roses were enriched by Mrs. B. R. Cant and Lady Battersea, and the rambler section by Queen Alexandra and The Lion. Three lovely single Teas are certainly a move in the right direction. They are Irish Beauty, Irish Glory, and Irish Modesty. I also thought well of Lady Moyra Beauclerc, Duchess of Portland, Lady Mary Cory, and Lady Clanmorris. This year one must of necessity possess a further acquaintance with its novelties, but Morning Glow and Salmonea have been grandly shown; so, also, have Ben Cant, Lady Roberts, and Alice Lindsell.

I rejoice to notice a desire on the part of our own raisers to depart from the beaten track. Unless a novelty in a show Rose is remarkably good it is not wanted, but our decorative Roses may well be improved and increased. We see in M. Pernet Ducher's *Soleil d'Or* and in Herr Schmidt's *Leuchstern* (two Continental novelties) what it is possible to accomplish in this direction, for in the one case we have the old Persian Yellow not only improved, but given also a perpetual-flowering character, and in the other instance *R. multiflora* has given us a charming single that must become a general favourite. The remarkable advance in the improvement of *R. wichuriana*—as, for example, Dorothy Perkins and Alberic Barbier—shows that a graceful race of rambles is about to be evolved from this trailing species, for they are as beautiful on a pergola as on a rotery or rockery, and surpass all others in grace and rapid growth. These novelties are not of English origin, but there is nothing to hinder our raisers trying their hand on other species and tribes, such as the Scotch Roses, the Moss Rose, the loveliest single Rose grown (Austrian Copper), the Macartney, *R. sinica*, and many other species, not forgetting our own native wilding, *R. canina*. I sincerely hope English raisers will strive to fill up the gaps in our collection, and, above all things, let us have free-growing, free-blooming, and fragrant Roses.

Name.	Variety.	Raiser.	Date.	Colour.
Alexander Dickson	H.P.	A. Dickson and Sons	1873	Rose.
*Alice Lindsell	H.T.	" "	1902	Pink.
†Alister Stella Gray	H.Nois.	Gray	1894	Cream.
†Amy Robsart	H.S.B.	Lord Penzance	1894	Pink.
Anne of Gierstein	"	"	1894	Crimson.
†Annie Laxton	H.P.	Laxton	1872	Deep rose.
Ards Pillar	H.T.	A. Dickson and Sons	1902	Dark crimson.
Ards Rover	H.P.	"	1898	Crimson.
†Atropurpurea	Rugosa	Paul and Son	1890	Purplish.
†Aurora	H.T.	W. Paul and Son	1898	Rosy pink.
Bacchus	H.P.	Paul and Son	1895	Crimson.
Beauty of Beeston	"	Frettingham	1883	"
Beauty of Stapleford	H.T.	Bennett	1878	Rose.
†Beauty of Thame	H.P.	Walker	1873	Crimson.
†Beauty of Waltham	"	W. Paul and Son	1862	Rosy crimson.
Beauty of Westerham	"	Cattell	1864	Red.
Bedford Belle	"	Laxton	1884	Blush-white.
Bellefleur	"	Prince	1902	Fiery crimson.
Belle Siebrecht (see Mrs. W. J. Grant)	"	"	"	"

Name.	Variety.	Raiser.	Date.	Colour.
*Ben Cant	H.P.	B. R. Cant and Sons	1902	Deep crimson.
*Bessie Brown	H.T.	A. Dickson and Sons	1899	Creamy white.
Bessie Johnson	H.P.	Curtis	1872	Blush.
Bennett's Seedling	Ayrsh.	Bennett	1840	White.
Beryl	Tea	A. Dickson and Sons	1898	Golden yellow.
†Black Prince	H.P.	W. Paul and Son	1866	Dark crimson.
Bladud	"	Cooling	1896	Blush-pink.
Boadicea	Tea	W. Paul and Son	1901	Peach, tinted violet.
Bob Davison	H.P.	A. Dickson and Sons	1902	Scarlet-crim.
Brenda	H.S.B.	Lord Penzance	1894	Blush.
Brightness of Cheshunt	H.P.	Paul and Son	1882	Scarlet.
Brilliant	"	W. Paul and Son	1887	"
Bruce Findlay	"	Paul and Son	1891	Crimson.
Captain Hayward	H.P.	Bennett	1893	Light red.
†Carmine Pillar	Hybrid	Paul and Son	1895	Carmine.
Caroline d'Arden	H.P.	A. Dickson and Sons	1888	Rose.
Catherine Bell	"	Bell	1878	"
Catherine Seyton	H.S.B.	Lord Penzance	1895	Soft pink.
Chameleon	Tea	W. Paul and Son	1902	Flesh, blotch'd crimson.
Charles Dickens	H.P.	"	1887	Rose.
Charles Darwin	"	Laxton	1879	Maroon.
†Charles Gater	"	Paul and Son	1893	Crimson.
Charles Lamb	"	W. Paul and Son	1884	Light red.
†Cheshunt Hybrid	H.T.	Paul and Son	1873	Maroon-crim.
†Cheshunt Scarlet	H.P.	"	1889	Scarlet.
†Clara Watson	H.T.	Prince	1894	Salmon-pink.
†Cleopatra	Tea	Bennett	1889	Pale pink.
Climbing Belle Siebrecht	H.T.	W. Paul and Son	1899	Rich pink.
" Bessie Johnson	H.P.	Paul and Son	1878	Blush.
" Charles Lefebvre	"	Cranston	"	Crimson.
" Countess of Oxford	"	R. Smith and Co.	1875	Carmine-red.
" Devoniensis	Tea	Pavitt	"	Creamy white.
" Edouard Morren	H.P.	"	"	Rose.
" Etienne Levet	"	W. Paul and Son	"	Carmine-red.
" Hippolyte Jamain	"	Paul and Son	1887	Rose.
" Jules Margottin	"	Cranston	1875	"
" K. Aug. Victoria	H.T.	A. Dickson and Sons	1897	White.
" Mlle. Eug. Verdier	H.P.	Paul and Son	1878	Pink.
" Niphotos	Tea	Keynes	1889	White.
" Pride of Waltham	H.P.	Paul and Son	1887	Salmon-pink.
" Queen of Queens	"	W. Paul and Son	1892	Pink.
" Victor Verdier	"	Paul and Son	1872	Rosy carmine.
*Clio	"	W. Paul and Son	1894	Blush.
Cœur de Lion	"	"	1867	Rose.
Cooling's Single Crim. Bedder	"	Cooling	1897	Crimson.
" Yellow Noisette	Nois.	"	1900	Yellow.
†Corallina	Tea	W. Paul and Son	1900	Rosy crimson.
†Corinna	"	"	1893	Rose and flesh.
Countess of Caledon	H.T.	A. Dickson and Sons	1897	Rose-pink.
Countess of Pembroke	"	Bennett	1883	Satiny rose.
†Countess of Rosebery	H.P.	Postans	1879	Carmine-rose.
Crimson Bedder	"	Cranston	1875	Crimson.
Crimson Damask	"	Turner	1902	"
†Crimson Globe	Moss	W. Paul and Son	1891	"
†Crimson Queen	H.P.	"	1891	"
*Crimson Rambler	Mult.	Turner	1893	"
Crown Prince	H.P.	W. Paul and Son	1880	Purple.
Dainty	Tea	"	1902	Primrose.
Daisy	H.T.	A. Dickson and Sons	1898	Rosy pink.
Dawn	Hybrid	Paul and Son	1898	Blush.
Dean of Windsor	H.P.	Turner	1878	Vermilion.
Delicata	Rugosa	Cooling	1899	Blush.
†Devoniensis	Tea	Foster	1838	Creamy white.
Diana	H.P.	W. Paul and Son	1874	Rose.
Distinction	H.T.	Bennett	1883	Peach.
Dr. Hogg	H.P.	Laxton	1881	Violet.
Dr. Hooker	"	Paul and Son	1876	Bright crims'n
†Dr. Lindley	"	W. Paul and Son	1866	Dark crimson.
†Dr. Sewell	"	Turner	1879	Crimson.
Dowager Duchess of Marlborough	"	Paul and Son	1891	Rose.
†Duchess of Albany	H.T.	W. Paul and Son	1888	Deep pink.
†Duchess of Bedford	H.P.	Postans	1879	Scarlet-crim.
†Duchess of Connaught	H.T.	Bennett	1878	Silvery rose.
"	H.P.	Noble	1880	Crimson.
†Duchess of Edinburgh	H.T.	Veitch	1875	Red.
Duchess of Fife	H.P.	Cocker	1892	Silvery pink.
Duchess of Leeds	"	Mack	1889	Rose.
*Duchess of Portland	H.T.	A. Dickson and Sons	1901	Yellow.
Duchess of York	H.P.	Cocker	1895	Pale pink.
Duchess of Westminster	H.T.	Bennett	1878	Cerise.
Duke of Albany	H.P.	W. Paul and Son	1883	Scarlet-crim.
†Duke of Connaught	"	Paul and Son	1878	Deep crimson.
"	H.T.	Bennett	1876	Crimson.
†Duke of Edinburgh	H.P.	W. Paul and Son	1868	Scarlet.
Duke of Fife	"	Cocker	1892	Scarlet-crim.
†Duke of Teck	"	Paul and Son	1880	Scarlet.
†Duke of York	China	W. Paul and Son	1894	Rose.
Dulce Bella	Tea	Bennett	1890	"

\* Gold medal, National Rose Society. † Award of merit, Royal Horticultural Society. ‡ First-class certificate, Royal Horticultural Society.

(To be continued.)



## ROSA WICHURIANA AND ITS HYBRIDS.

WE are indebted to our American friends for a few useful garden Roses, such as the lovely Dawson Rose, Harrisonii, &c., but more especially for the varieties they have developed from that excellent Japanese species *R. wichuriana*. The type is a creeping Rose, and most useful it is, too, for covering a large area with its fast growing, trailing shoots, plentifully clothed with the brightest foliage imaginable, and in August with immense bunches of single white flowers. But if used simply as a ground trailer much of its beauty is lost. The best plan is to place a few good sized logs in the centre of a bed and allow the growths to creep over them, producing a lovely mound of snowy flowers when other Roses are fading. It is strange that the many hybrids of *R. wichuriana* bloom earlier than the type, and none possess the Ivy-like flat growth in the same degree, although they are most successful to scramble over logs or rockeries. But this is not the

*Pink Roamer* deserves its name, for it will make yards of growth in a season, and when in flower running over an old tree it has a beautiful wild Rose-like effect save in the flower colouring, which is a deep pink. A capital way of seeing this variety to the best advantage is to train it up a 6 feet to 7 feet stake, and then allow the long growths to droop towards the ground; the streamers of blossom moved by every wind have a very telling effect. In this way also it is most useful as a conservatory plant.

*Rene Andre* is one of the latest introductions, and, like Alberic Barbier, a great gain. It resulted from a cross between the type and *l'ideal*, the latter giving the double flowers some of its own wonderful colouring.

*Ruby Queen* is a slight departure from the strictly trailing form, although it will cover a considerable space in a year. Its flowers are of the loveliest carmine colour with a distinct white base. The pride of place, however, must be accorded to the latest comer,

*Dorothy Perkins*, which is surely destined to supplant all pink ramblers. It is a true

garden at Kew, one of them, crossed with *R. rugosa*, is like a creeping Penzance Sweet Briar in appearance with large satin rose flowers, and the other a cross with General Jacqueminot, a very distinct pale carmine colour with growth like a Noisette.

PHILOMEL.

## SOME AMERICAN WILD ROSES.

THE wild Rose of our woods is the loveliest flower of June. Lonely and neglected, she is still a queen. The beauty of *Rhododendrons* and *Azaleas* may take the eye, but the appeal of the wild Rose is to the heart. Unlike our native *Violets*, she has a haunting fragrance all her own. Our flora is not rich in species of the Rose. A few kinds are found in profusion in our woods and moist lowlands, and a few, like the wild Dog Rose of England and the Sweet Briar, have found congenial quarters along our roadsides and in our hedgerows.

One of the commonest of our native wild Roses is *Rosa lucida*, or, as our more recent botanical works term it, *Rosa humilis lucida*. This is the Dwarf or Pasture Rose, and has a bushy habit of growth, sometimes attaining the height of 6 feet, but usually only 3 feet or 4 feet in height. It is quite prickly, with slender spines, and has five to seven thin, shining, serrate leaflets. The flowers are solitary and not very freely produced, but they are a clear, tender shade of pink, and have a delightful wild Rose fragrance. This is one of our earliest Roses to bloom.

*Rosa Carolina*, the Swamp Rose, is very abundant in this neighbourhood. It borders all our streams and makes thickets in our marshy lowlands, blooming after the June Roses are past their prime. Sometimes it forms a graceful bush 7 feet or 8 feet in height, but is often of straggling form in its native haunts, where it is crowded by Elderberries, Thorns, and a tangle of other marsh-loving plants.

The leaflets of this Rose are from five to seven in number, sometimes nine, long and slender, and finely serrate. The blossoms are in few-flowered corymbs, and open one at a time, thus prolonging the flowering season for several weeks. The individual flowers are about 3 inches across, and are bright pink. A plant of *Rosa Carolina* under cultivation in good and rather moist soil will spread by underground runners from the root and soon make a fine clump.

The fruit of the Swamp Rose is a bright scarlet, and usually remains plump and unshrivelled during the winter months, making a clump of this Rose a very effective ornament to the shrubbery in the cold months.

But our most beautiful wild Rose is *Rosa setigera*, the Prairie Rose. This Rose is often found growing amid shrubs and young trees in our copses and woodlands. In such positions it will climb by the aid of the branches of the trees to the height of 10 feet or 15 feet. It is such a rapid climber that it will often send out shoots 10 feet or 12 feet long in one season. Left to itself, however, and planted in the open, out of reach of any support, it will



ROSA WICHURIANA ON A GRASSY BANK IN MR. MAWLEY'S GARDEN AT BERKHAMSTED.

limit of their usefulness. They make elegant pillars for the supports of pergolas, and also for Weeping Standards or for trellis work.

*Jersey Beauty* still remains one of the best of the hybrids. The large single flowers remind one strongly of those of *R. lœvigata* in all save colour, which is a creamy white, the buds being pale yellow and quite as pretty as a Tea Rose. The foliage of this variety, next to the type, is the most striking of the set, just as brilliant as the latter, but of a red hue, which it inherits from the Tea variety *Perle des Jardins*. Although the shoots are so Tea-like in appearance they seem to be very hardy for this season, when many of the Tea variety close by were injured by the spring frosts, *Jersey Beauty* and others passed through unscathed.

*Alberic Barbier* promises to be one of the most valuable of the double-flowered kinds. The buds of this are equal to many of the button-hole Teas both in size and in Tea-like colouring, and the foliage is equally as glistening as *Jersey Beauty*.

rambler, growing exactly after the style of *Crimson Rambler*. The grand trusses of twenty to fifty flowers are very attractive, every little double flower reminding one of the miniature province *De Meaux* only that they are brighter. The colour is a very striking shell pink tint. Even for pot culture it will be invaluable. Certainly nothing in the rambler way has appeared that can be compared to *Dorothy Perkins*, unless it be *Leuchstern*, and this latter cannot be called a rival because it is single, whereas *Dorothy Perkins* is quite double. The charming colour it doubtless inherits from the pollen parent *Mme. Gabriel Luizet*, and also in some degree the fragrance. It is a remarkable cross. From all appearances some dark red hybrids of *R. wichuriana* are only a question of time for if they will cross freely with a large Rose such as *Mme. Gabriel Luizet* they surely will do so with *Duke of Edinburgh*, *Prince Camille de Rohan* and the like.

Two beautiful hybrids from the Arnold Arboretum are to be seen in the dell Rose



develop symmetrically on all sides, its slender stems rising 3 feet or 4 feet in the air, and then arching over until their tips reach the ground. It thus forms a veritable fountain of bluish green foliage, covered in July with its charming blossoms, which are conspicuous for their large size and rich rose colour.

This Rose blooms at the same time as *Rosa wichuriana*, and it is very effective when planted in a group of about twelve specimens, far enough apart to allow each to develop naturally, and with the ground between them carpeted with *R. wichuriana* or some of its hybrids. It is also a fine Rose to use in the wild garden, scrambling over evergreens and other little trees. It is one of the most accommodating of Roses, not particular as to soil or situation, doing better than almost any other species in the shade, and very little troubled by insect enemies.

Another good use to make of this beautiful Rose is to plant it at the top of a bank, and allow its long shoots to ramble at will down its sides.

The pretty little *Rosa blanda* is naturalised here, but its home is farther north. It is easily distinguished from the other species we have been considering by its low stature. It is of slender habit of growth, and is seldom found over 3 feet in height. It is almost thornless, and has small, rounded leaflets, from five to seven in number, and pink blossoms that are large and showy for so small a plant. It is found in moist rocky places not farther south than New Jersey.

Very few of our American poets have celebrated the wild Rose in song, but the lady who wrote of the Asters has given us one short lyric in her honour, with which I will close this article.

#### THE WILD ROSE.

I am the wild Rose, lonely is my fate ;  
I am a queen, and yet I keep no state ;  
My beauty by no minstrel sung or told,  
And all my riches is my heart of gold.  
I am the wild Rose, in the forest dim  
I listen to the sparrow's vesper hymn ;  
And silent shed upon the summer air  
The dewy fragrance of my evening prayer.  
My stately sister of the garden close,  
Superb in languid grace, the crowned Rose  
Due greeting sends, and royal messages  
By the light pinions of her courier bees.  
She has her Court, her lords and ladies gay—  
Would I might o'er one loyal heart hold sway  
Yet, come what will, my life shall ne'er be sad,  
For God hath made me beautiful and glad.

DANSKE DANDRIDGE.

Shepherdstown, West Virginia, U.S.A.

#### RECENT PLANT PORTRAITS.

THE first number of the seventeenth volume of *Lindenia* contains portraits of the following four Orchids:—

*Lycaste Luciani* var. *superba*.—This is an exceedingly handsome variety, the petals of which are of a deep shade of rosy purple and the central tube pure white faintly veined with rose colour.

*Cattleya Trianae* var. *Memoria Lindeni*.—This is a very handsome variety, with petals and sepals whitewashed with rose colour and it has a deep and rich rosy purple lip.

*Cypripedium auriferum*.—This is a very fine variety of the same parentage as *C. Beeckmanii*, figured in the third volume of this work. Its colours are orange-yellow, the dorsal sepal being edged with white.

*Dendrobium wardianum* var. *Fascinator*.—This is a most beautiful form of the well-known *D.*

*wardianum*, with larger flowers and brighter and deeper colouring.

The *Revue de l'Horticulture Belge* for June contains portraits of *Tetralochea ericifolia*, a very pretty and free-blooming greenhouse shrub, which is a native of Australia, and produces numerous branches of rosy purple flowers.

*Dichorisandra* (?) *thysiana*.—This is a handsome foliage plant from the Congo region. It has not yet flowered in cultivation, hence the note of interrogation after its first name.

The first number of the *Revue Horticole* for June figures three fibrous-rooted *Begonias*—*Gloire de Lorraine*, *Caledonia*, and *Hortensia*. These are exceedingly free-blooming, and valuable for the decoration of a warm greenhouse during the dull winter months. The first two named are now well known in our gardens. The third is an intermediate shade of colour. The second number of the same publication for June contains *Passiflora decaisneana*. This is a deep claret-coloured form of *P. quadrangularis* or *granadilla*. It requires the temperature of a warm house for its successful cultivation.

W. E. GUMBLETON.

#### WORKERS AMONGST THE FLOWERS.

MR. GEORGE PAUL, J.P., V.M.H.

MR. PAUL'S well-known name stands in the world of horticulture in a place of honour as that of one of a great family of Rose growers. In these days especially of awakening to the new possibilities of beauty in Roses his work is well in the front as a hybridiser and raiser of beautiful new things for the adornment of our gardens. But it is not in the Rose world alone that this eminent horticulturist takes a foremost place. His extensive nurseries of trees, shrubs, and plants, besides the Rose nurseries at Cheshunt, show two salutary forces working in harmony—that of sound commercial enterprise and that of a man with a true love of good plants and beautiful flowers.

Mr. Paul was educated at Tottenham

Academy, and subsequently at a school at Altona, in Germany, where amongst others Mr. Harry Veitch was his schoolfellow. He then went as a pupil to Messrs. Fisher, Holmes, and Co., of Handsworth, where he had the good fortune, under the late Mr. Charles Fisher, of gaining a knowledge and love of hardy plants. In 1860 he joined his father, Mr. George Paul, sen., in his firm, styled then as now "Paul and Son," of Cheshunt, and succeeded to the sole control on his father's death in 1867. The Cheshunt firm already had a reputation for Roses and hardy plants, which has since been more than maintained. When Mr. George Paul came he found some seedling Roses subsequently sent out by the firm as Lord Clyde and Duke of Edinburgh. Encouraged by the success of these he raised and sent out in 1871 the first Hybrid Tea, Cheshunt Hybrid, a well-known kind; and later, continuing the Duke of Edinburgh strain, S Reynolds Hole.

The Shah and Sultan of Zanzibar, raised from the Duke, were distributed in 1873, and the Duke of Connaught in 1876. After twenty-five years these still remain amongst the best dark Roses. John Bright, still the most vivid red, was sent out in 1875, and was followed by a series of climbing sports of which Climbing Victor Verdier was the first. This was followed by Climbing Bessie Johnson and Climbing Pride of Waltham—three of their best pillar Roses.

In 1880 and 1881 Duke of Teck and Brightness of Cheshunt continued and concluded the Edinburgh progeny. Glory of Cheshunt of 1880 was obtained from Charles Lefebvre; Mme. Norman Neruda of 1884 promised to be a July-flowering Rose, as did also its successor, J. B. Haywood; they were not very popular, but they prolonged the Rose season. John D. Pawle of 1889 still stands as one of our best crimson bedding Roses.

Bedding Roses now coming to the front Mr. Paul tried to get varieties of vivid colouring and free continuous habit. Paul's Cheshunt



A SCREEN OF SALMON-PINK RAMBLER PSYCHE IN PAUL AND SON'S NURSERY AT CHESHUNT.

(This Rose was raised by Mr. George Laing Paul.)



Scarlet of 1889 was the first of these; it was succeeded by Bacchus in 1893, and in 1898 by Royal Scarlet, all of this class. Some trials with the Bourbons produced Mrs. Paul in 1891, and later, from this variety, the half-double Dawn. In 1883 the distribution of a seedling single Rose, Paul's Single White, was somewhat timidly ventured; it met with approval, and led to Mr. Paul's sending out, at Mr. Robinson's suggestion, Paul's Single Crimson; and later on Carmine Pillar, Rugosa America (from Harvard) and its Cheshunt seedling Atropurpurea. The firm's first Rugosa had been Rose-apples; the latest, not yet distributed, is Rugosa repens, a white Rose creeping on the ground. Una, a fine single from R. Canina, and a Tea, proved beautiful and popular. Alan Cheales and J. B. M. Camm, named after old rosarian friends of the sixties, are amongst Mr. Paul's latest contributions. To his son, Mr. George Laing Paul, belong the new hybridised Roses of the Rambler race—Psyche, The Lion, Wallflower, and Tea Rambler, all of the last three years. Though working mainly in the speciality of his firm, Roses, Mr. Paul has tried some experiments in other classes of plants. By crossing *Rhododendron Fortunei* with some of the best Catawbiense hybrids good results have been obtained, the varieties Duke of York, Duchess of York, H. M. Arderne, and others having won the Royal Horticultural Society's awards of merit; he has also done good and successful work among the Azaleas.

Cannas and Amaryllis from Cheshunt figure amongst the certificated varieties of the Royal Horticultural Society, and Phloxes and other herbaceous plants have yielded good results from careful seeding and selection. As an exhibitor for forty years Mr. Paul's records show remarkable success, seventy-one first prizes for Roses in 1872 being a notable example. With the rejection at Cheshunt of the Manetti stock less attention was given to showing the exhibition Roses, but of late years the firm has carried off the leading first prizes for the garden Roses. In pot and indoor Rose culture continued trials have been made, and knowledge in this department has been advanced.

Mr. Paul was a member of the Council of the Royal Horticultural Society at the time of its reconstruction; he served as juror at the Paris Great Exhibition of 1889; he is a Justice of the Peace for Hertfordshire, and represents his division of the parish on the Herts County Council. He was one of the sixty prominent horticulturists who in 1897 received the Victoria Medal of Honour in horticulture. He says of his life: "Looking back at my long garden life I feel the varied interests of the profession—'The joys, the triumphs, the laments' of Longfellow are a pleasant retrospect."

**Rudbeckia conspicua.**—This is a valuable hardy plant to grow, especially in a dry season, as it is not affected by drought in the same way as is *R. Newmanii*. *R. conspicua* belongs to the hirsuta type, grows 18 inches high, and is exceptionally free flowering; it has long narrow petals of an intense orange-yellow colour with the usual black disc.—E. M.

## NOTES ON HARDY PLANTS

### NEW HEUCHERAS.

**H** EUCHERA ZABELIANA.—This is a pretty hybrid which originated in Germany, and is a distinct advance. It is nearest to *H. sanguinea*, not the wretched *H. sanguinea* of to-day, but the pretty and vigorous plants of bygone years. It forms a close-growing tuft, neater and less woody than *H. sanguinea*, and produces a multitude of slender, graceful spikes 18 inches high, bearing quantities of rosy pink, bright-looking flowers each the size of the hybrid *H. brizioides*, though the inflorescence itself is neither so rambling nor so massive. It is, I believe, a hybrid between *sanguinea* and *brizioides*,

of that species. The flowers are so numerous that it seems a mistake to speak of them individually; they remind one of a patch of *Saxifraga umbrosa*. The plant is distinctly a credit to the firm who raised it, for I know full well the great difficulty in getting satisfactory hybrids between *Heucheras*, especially with *H. brizioides* as one parent, the green flowers of *H. Richardsoni*, itself a parent of *H. brizioides*, asserting themselves in the third and fourth generation with painful persistence. A quantity of hybrid seedlings produced in Messrs. Wallace and Co.'s nurseries at Colchester between several species reveal nothing to approach these two plants in colour and effective habit, despite careful handling and much discretion in selecting the species to employ for the desired end. A second series of hybrid seedlings embracing the most desirable characteristics of *H. micrantha* and *H. sanguinea* should, when again crossed, prove more satisfactory.

G. B. MALLETT.

### SCHIZOCODON SOLDANELLOIDES.

THERE are few alpine growers who have not of late years attempted to grow this charming Japanese plant, but it is to be feared that their endeavours have too often resulted in failure if the plant has been grown in the open. I believe that this is largely due to the plants having been recently imported, and that their health has suffered so much in the long journey they have taken that they have never recovered themselves. It is, I believe, a fact that the wholesale selling price in Japan is infinitesimal compared with that at which it is possible to offer a healthy plant in this country. This points to a large percentage of losses, and also to the enfeebled condition of many of the survivors. While this would account for many cases of failure, it is also evident that its requirements in our climate are not sufficiently understood, and that the *Schizocodon* has wants of its own which we ought to supply if we are to attain the success with it we all desire. A robust plant, when kept in a frame, is not so difficult to grow, but it is to be feared that it will not flower with the freedom we look for, and, after all, alpine plants in pots are unsatisfying things, and we ought to strain our skill and ingenuity to discover how they may be cultivated in the open. One of the first to grow the *Schizocodon* successfully in the open was the late Mr. George F. Wilson, whose loss all hardy plant lovers must deplore, and I can remember the pleasure I experienced when he pointed it out to me in that delightful garden of his at Oakwood, Wisley. It was the first healthy plant I had seen in the open, and it was pleasant to see how happy it looked in its shady position.

Mr. Wilson's success spurred one on to a renewed trial, and by following, to some extent, the same lines, one is gratified to have the charming *Schizocodon* in health and apparently happy, delighting one with its fascinating flowers, of such a beautiful pink, and fringed like those of a *Soldanella*. Yet I am not sure that its flowers constitute its greatest charm, for the foliage, with its lovely colouring, is of great beauty, and retains its attractions long after the flowers are over, while it assumes them before the flowers appear.

It is even more beautiful than the *Galax* and the *Shortia* in its colour, and many a time have people stopped and expressed their delight with the colour of the foliage. I grow it here in a



MR. GEORGE PAUL, J.P., V.M.H.

in which the rich colour of the former and bold habit of the latter blend to form a charming border plant. Those who use quantities of cut flowers for decoration should find this plant invaluable, whilst one can further recommend it as an improvement on *H. sanguinea* or its var. *splendens* in all save colour, the tint of *H. zabeliana* being slightly paler than either.

*H. brizioides gracillima* is another pretty hybrid of a different stamp to the preceding. It was raised by that firm of clever hybridists, V. Lemoine and Co., by crossing *H. micrantha* or its var. *rosea* with *H. brizioides*, and it resembles *H. micrantha* in growth. It forms a dense tuft of pale green leafage, and has a myriad of rose-coloured spikes above a foot high, covered with a cloud of pale pink flowers a little larger than those of *micrantha*, but retaining the light, graceful habit



rockery facing almost due east, but well protected from the cutting winds from that quarter. The "pocket" in which it is planted is about 3 feet above the path, and is shaded from the sun by higher terraces and a few small shrubs on the top. It practically gets little sun. The pocket is filled with peat and sand, with only the smallest quantity of sandy loam, and during dry weather copious supplies of water are given.

S. ARNOTT.

*Carsethorn, by Dumfries, N.B.*

## IRIS SOFARANA MAGNIFICA.

This beautiful *Oncocyclus* Iris was fully described in *THE GARDEN* of June 14, page 393. It was shown by Messrs. Wallace and Co. at the Temple show, and given a first-class certificate.

## COLOURED PLATE

PLATE 1260.

## ROSE CLEOPATRA

(TEA-SCENTED).

**M**ORE than any variety grown, not even excepting *Comtesse de Nadaillac*, this superb Rose shows the skill of the cultivator. The novice would almost certainly fail with it, for it is one of the worst growers in the whole collection. And yet flowers are frequently seen that excel all other Roses in their grandly pointed centres and large massive petals. Seeing how splendid are its flowers it is rather surprising to learn from Mr. Mawley's list of "Medal Roses," published in "The Rosarian's Year Book" for 1897, that *Cleopatra* only occupies the ninth position among Tea-scented varieties that have received medals as the best Roses in their class, the eight varieties superseding it being *Comtesse de Nadaillac*, *Souvenir d'Elise Vardon*, *The Bride*, *Innocente Pirola*, *Catherine Mermet*, *Maréchal Niel*, *Mme. Cusin*, and *Mme. Hoste*.

*Cleopatra* is best grown upon half-standard Briars, with stems from 2 feet to 2 feet 6 inches. If required as a dwarf the Briar cutting should be used, but it never produces such massive flowers from dwarfs as it does from half standards. By using the latter the height stated it should not be difficult to thoroughly protect the plants in winter.

It is essential to prune severely to obtain flowers of the highest quality, and as the new growths are so numerous when starting it requires much thinning of the shoots in spring.

*Cleopatra* is one of those Teas that require generous treatment in the way of manure. Those who grow this variety to the greatest perfection make a practice of digging in some well-decomposed stable manure at the end of November or early in December and in June. When the buds are forming, liquid manure made from good cow manure is given once a week for three or four weeks.

The buds are of great length, of a creamy flesh colour, shaded with rose. It is, however,



THE NEW ONCOCYCLUS IRIS SOFARANA MAGNIFICA.

(The standards are  $2\frac{1}{2}$  inches wide and 4 inches long.)

the splendid shape of the developed flower, rather than the colour, that gives the variety the high position among exhibition Teas.

The flowers from which the coloured plate was prepared were kindly sent by Mr. Frank Cant, Baiswick Nursery, Colchester.

The late Mr. Bennett, to whom rosarians are so deeply indebted for many grand Roses, introduced *Cleopatra* in 1889. ROSARIAN.

## THE ROSE GARDEN AT KEW.

A DOZEN years ago Roses at Kew were not a special feature, and few people would have thought of paying a special visit for the purpose of inspecting them. Now quite the opposite is the case, for, from the end of May until the end of summer, Roses of all descriptions are to be seen in flower, and many people make an annual pilgrimage to see them.

The collection, as it stood twelve years ago, consisted of a fairly large number of species, a few hybrids, and a few garden varieties. These were taken in hand and added to until the species were as complete as possible, and the garden Roses, Hybrid Perpetuals, Teas, &c., were represented by a good collection of the best sorts. The species, though covering a great deal more ground than formerly, are still to be found in their old position—i.e., the west side of the Pagoda Vista. A favourable position for the garden varieties was found about the Palm house, and climbers were accommodated on poles and chains near the herbaceous ground. To make the collection com-

plete a place was, however, required for hybrids and varieties of the rambling type, which were cultivated in beds here and there about the gardens, and which, to be seen at their best, require to be left in a semi-wild state. In 1895 a favourable site was selected on the east side of the Pagoda Vista near the Pagoda, and it is of this garden that I am writing.

The garden is formed in a valley running north-east and south-west. It is about 120 yards long, and varies considerably in width, the centre being the widest part. In depth it also varies considerably, dipping from the ground level at each end to the centre. Through the middle a wide grass path runs, and from the eastern side of this there are grass walks some 30 yards or so from each end. The sides of the valley are terraced, the soil being held in position by a facing of tree roots placed roots outwards. An irregular outline is gained by bringing the faces of the terraces almost to the edge of the grass walk in some places, while in others they recede, forming large bays. The original soil was very poor, as the position was an old gravel pit some years ago. To remedy this a great deal of gravel was removed and replaced by good clayey soil and manure to a depth of nearly 2 feet.

In planting, the method of grouping so largely adopted at Kew was practised, each bay or terrace being given up to one particular variety. Of species proper very few are now to be found. In the first place more species were planted, but these have been removed as space was required for varieties. The few which remain are extremely pretty ones and worthy of a place in any rose garden.

The principal items in the upkeep of the garden are replanting when the plants become too thick, an annual pruning, a little staking, watering, and keeping clean. Of these items the pruning is the most particular, as it is on this point that failure or success to a great extent depends.

In most cases the pruning is done as soon as flowering is over, and consists in thinning out the old flowering shoots, leaving the young branches the full length for the following year's flowers. This thinning keeps the centres of the plants open and free from dead wood, admits light and air to all parts, and gives the plants a light and graceful appearance. Staking is done with care, as few stakes as possible being used. *Crimson Rambler* and similar varieties merely have the shoots supported, which would otherwise trail on the ground, the stakes being driven in the ground at as near as possible the same angles at which the branches are growing. For such varieties as the *wichuriana* set stout Oak branches on which numerous side branches, 1 foot to 2 feet long, have been left are used; on these the long, slender shoots wander at will and arrange themselves in a graceful and natural manner.

The most conspicuous groups in the garden are the following:

*Crimson Rambler*, a very large semi-circular mass with a frontage of 55 yards. It is so arranged that the whole can be seen, the back plants being higher than the front ones, whilst the branches of the front plants trail over the roots which form the face of the terrace on which the group stands.

Opposite to this are several large groups occupying the central position on the western side. The background is composed of large rambling plants of the Chinese and Japanese species *multiflora*, together with the pretty *Dawson Rose*, a semi-



double, pink variety, raised by Mr. Jackson Dawson, of the Arnold Arboretum, by crossing *R. multiflora* with the red *H.P. General Jacqueminot*. Perched up above the other plants, with its branches trailing over tree roots and other things, this variety makes a lovely picture and one which is much admired.

Below, a large group of the fine *R. rugosa* hybrid Mrs. Anthony Waterer makes a fine mass. It is by far the best of the double reds yet raised from *rugosa*, being very free, of rich colour, and very fragrant. Its other parent is General Jacqueminot. In front of this group and occupying a large bay are numerous varieties of the Scotch Rose, *R. spinosissima*. The two largest growing varieties are *altaica*, 6 feet to 8 feet high, with white flowers 3 inches across, and *hispida* with very spiny stems and sulphur-coloured flowers. In front of these is arranged a selection of the various single and double varieties of *spinosissima*, conspicuous among them being James's Purple, William IV., double pink, &c.

The Siberian yellow-flowered species, *ochroleuca*, is represented by a good sized group, backed up with a mass of the large flowered fragrant *R. moschata*; but by far the prettiest of the yellow flowered species is *R. lutea*, with deep yellow blossoms. This occupies a bay on the same side as *ochroleuca*, but is separated from it by a large mass of Paul's Carmine Pillar, which is seen to great advantage by having a deep green Holly for a support. The red flowered Noisette Fellenberg forms a very large group and flowers throughout the summer. The Prairie Rose, *R. setigera*, forms a large tangled mass; as also does Flora and Blairii No. 2.

*R. wichuriana* and hybrids have a corner to themselves. The type forms a border to the taller growing hybrids, which, as previously stated, are rambling over rough branches. Of the larger and older plants, Manda's Triumph, South Orange Perfection, Jersey Beauty, and Pink Roamer are conspicuous; while of the newer varieties, Paul Transon, *wichuriana rubra*, Auguste Barbier, Alberic Barbier, and Reine Andre are represented. In addition to these there are several unnamed hybrids, of which one raised by crossing *wichuriana* with *rugosa* is the prettiest. The flowers are pink and 3 inches to 4 inches across.

In the north-west corner of the garden an interesting group is composed of a selection of *R. rugosa* hybrids, a group which is of special interest on account of the extreme hardness of most of the members. Some of the most conspicuous are *Helvetia*, single white; *Blanc de Coubert*, *germanica*, and *Mme. George Bruant*, double white; *Souv. de Cristophe Cocket*, rose; and *Mme. Charles, Fred. Worth, Souv. de Pierre Leperdrieux, Chedane Guinoisseau, and Mikado* various shades of red. A very pretty single red is one which claims *rugosa* and General Jacqueminot for its parents. The flowers are bright red and 2 inches to 3 inches across. Other varieties found in the garden are the yellow double-flowered *lutea* var. *Harrisonii*, *lutea bicolor*, *Psyche*, *Eleanor Berkeley*, *Claire Jacquier*, *Helene*, &c.

The best time to see this garden is from the beginning of June until the end of July, during which time there is always a good display. At the present time (mid-June) the prettiest effects are

made by Carmine Pillar, the yellow previously mentioned, Dawson Rose, *rugosa* hybrids, and the *spinosissima* group. In a fortnight's time these will give place to Crimson Rambler, Fellenberg, *wichuriana* hybrids, &c.

W. DALLIMORE.

## THE FLOWER GARDEN.

### THE DEVELOPMENT OF THE FANCY PANSY.

**W**HAT beautiful Pansies! was the general remark made by visitors as they contemplated the fine fancy varieties staged in such highly developed character by Messrs. Dobbie and Co., florists, Rothesay, at the Temple show. The term "fancy" was applied many years ago to flowers charming in themselves which could not be brought into line with the yellow grounds, the white grounds, and the self-coloured show varieties which are all of English production, flowers very beautiful in themselves and well worthy of cultivation, but amenable to certain properties set forth many years ago and continued to the present day. They are so refined and so distinct from the fancy type, they are generally of vigorous growth, and remarkably free of bloom that it is not to be wondered at they should be rising in popular favour, though the large, gorgeously blotched fancy varieties still dominate in gardens. As they are not restricted



ROSE FLORA IN THE ROSE DELL IN THE ROYAL GARDENS, KEW.



as to character by a schedule of arbitrary properties which govern the English show varieties, anything which can lay claim to form, size, stoutness of texture, and brilliance of marking can be comprehended in the fancy section. I am growing a plantation of each this season, and, assisted by the moist weather, both are blooming finely. The casual visitor, as might be expected, exhibits floral ecstasies over the large fancy flowers, but as one inheriting the floral traditions of half a century ago the refined show varieties have the greatest attractions for me.

The first beginnings of the fancy Pansy date back to the thirties, when so much was being done in the direction of improving the English varieties. Among the many seedlings raised came a number of striped and blotched flowers, actually nondescripts, judged according to the grounds upon which Pansies were then being selected, and these found favour with some. One man who took a deep interest in them was the late Mr. John Salter, of Chrysanthemum renown, then an amateur residing at Shepherd's Bush, and he raised seedlings and improved them in every possible way. In 1843 he went to Versailles, France, and established himself in business there, naming and sending out fancy Pansies as well as other leading florists' flowers. In 1848 the outbreak of the French Revolution, which led to the abdication of the Orleans family, caused him to leave France, and he came over to England and established himself in business at Hammersmith, and founded the Versailles Nursery, retaining a good deal of his foreign connexion, and he grew and distributed his fancy Pansies, &c. I think it is probable that in the early fifties some of these found their way into the hands of M. Miellez, Lille, for about 1853 this gentleman sent over to England—to Messrs. E. G. Henderson and Son, then at the Wellington Road Nursery, St. John's Wood (the site of which is now a portion of Lord's Cricket Ground)—a batch of greatly improved fancy Pansies, and this firm, doubtful of their ability to do them justice within the range of London fogs and smoke, sent them to my brother, William Dean, then in business at the Bradford Nursery, Shipley, Yorkshire, and in that cool and moist part of the country they were quite at home and grew freely. As I spent one-half of 1859 and the same of 1860 at Shipley I had something to do with the culture and propagation of this very fine and distinct strain. They were seeded from new varieties raised and distributed, and, though the older school of florists frowned upon them, they made steady headway, especially in Scotland. Messrs. Downie, Laird, and Laing went in strongly for their culture, and they also raised and distributed many fine varieties. I think it is possible that before M. Miellez had sent his strain to this country, the late Mr. John Downie was at work along much the same lines as John Salter, and a variety named *Dandie Dinmont* was one of the most distinguished of Mr. Downie's productions. The point to which we have now reached in the improvement of the flowers was seen in the very fine varieties at the Temple show, the productions of several raisers. It is not, therefore, to be wondered at that these gorgeous fancy Pansies are so much grown for market purposes. They are found on the stalls of the hawkers, and find a ready sale in the streets.

A selection of the finest varieties exhibited by Messrs. Dobbie and Co. is as follows:—

*Jeanie R. Kerr*.—Brown, violet blotches; upper petals yellow, edged with white. A variety of very fine quality.

*Jeanie B. Smith*.—A very fine pure white self, with large dark central blotches.

*John Myles*.—Laced crimson and edged with rosy white; upper petals bright crimson, tinged rosy white.

*Mary Travis*.—Laced creamy white, clear cut, crimson blotches; top petals purple and white.

*Marounneen*.—Dense violet blotches, edged lemon and magenta; upper petals lemon, with purple pencilling, and heavily banded with magenta, large and stout.

*Miss A. Brown Douglas*.—A magnificent Pansy, dense black blotches, edged with rosy crimson and

white; top petals magenta. A very large and perfectly formed flower quite constant in character.

*Mr. Charles Stirling*.—A large deep yellow self, with clean cut circular black blotches. Blooms of great size and perfect form.

*Mr. B. Wellbourne*.—Large clear brown-black blotches, laced with primrose; the upper of a bluish drab. A very fine and striking flower.

*Robert C. Allan*.—Dense plum blotches, edged crimson and sometimes white; upper petals crimson, tipped with white; large and stout.

*Robert White*.—Glossy black blotches, laced with bright yellow; the upper petals of the same colour; a large and very fine yellow self.

*Tom Walters*.—One of the very best; the dense glossy blotches purple on a red ground, the red showing in a glowing circle round the blotches; the lacing rich yellow; top petals banded with bright maroon, shot with red.

*Wm. H. Clarke*.—Large glossy black blotches, laced with rich yellow; top petals yellow, banded with apricot.

*William Maxwell*.—Large circular blue blotches, edged white, and rose on all the petals alike. A very fine and constant variety.

*W. P. A. Smyth*.—Immense bluish purple blotches, edged pale yellow and tinged pinky rose; upper petals veined with bright purple and yellow. A perfectly formed flower.

There are a large number of varieties in cultivation, probably approaching two hundred, as most growers in the trade send out new varieties. The foregoing select collection is chosen quite irrespective of the raisers, and because they were exhibited at the Temple show in the finest character.

R. DEAN.

### STANDARD FUCHSIAS.

DEPARTURE from the old massing style of summer flower gardening, and the introduction of arrangements that include base or carpet plants from out of which rise gracefully and not densely tall flowering and foliated plants, have greatly helped the reintroduction of the Fuchsia into flower gardens, and for the purpose named in no respect are plants better than when in standard form. If then, on clean stems, from 2½ feet to 3 feet in height, with bold massive heads of equal breadth, and full of bloom, they are singularly beautiful objects, and enable all the lower branches and flowers to hang down in pleasing gracefulness without touching or covering up the carpet or base plants beneath. Fuchsias are to be had in so many varieties and with so many diverse habits that in planting any one large bed it is not essential that varieties be limited, if habit or general character be similar. Certainly were the base to be of some white *Viola*, *Petunia*, or other suitable covering free-blooming plant, it would be well to limit the selection to dark coloured varieties, or if the base be of some dark hue then white-tubed and sepalled varieties are best. It is not difficult to work up a stock of standard plants. Generally it is best to employ spring-struck cuttings, to grow them on rapidly in warmth, keeping sides pinched to a few leaves, and encouraging the leader to make strong growth. When that, however, shows signs of flowering it is well either to find out the point and take a fresh shoot as leader from the highest leaf bud, or else to hard pinch out the buds, and thus encourage the point of the leader to make a fresh start. Generally the main stems should be fully 4 feet in height before they are finally stopped. Then side shoots for some 12 inches in depth may be encouraged to break strong and thus lay the foundation of a good head. The next spring, if these lateral growths have been moderately shortened back, it should not be difficult, with, say, a couple of pinchings, to form quite dense heads. The following year they can be either planted out into beds thinly, or, as is often done, got into 9-inch or 10-inch pots, and in those plunged into the beds before the carpet or base plants are put out. Whilst thus employing Fuchsias there can be no objection to the use of variety, so long as the plants and flowers harmonise in habit and colour; it is not well to intermix, as is sometimes seen, such things as *Heliotropes*, *Streptosolens*, *Plumbagos*, *Swain-*

*sonias*, &c., as these being rather in pillar than in standard form, are best when by themselves, and if not too freely planted very charming they are. *Solanum jasminoides* is in the same way very effective, so too are tall plants of *Calceolaria amplexicaulis*, and Ivy-leaf *Pelargoniums*. But none of these can well be made to assume the clean stemmed handsome standard form which Fuchsias give, hence these are best when alone used.

### LAWNS.

THE recent heavy rains have made lawns look exceptionally green and the grass to grow far too abundantly for the gardener's peace of mind. We have had so many dry parching seasons, when grass has suffered severely from drought and has become literally burnt up, that to have lawns looking so green in June as they now do is a fresh experience, and, to all who admire a nice green lawn, not an unpleasant one; but the keeping of the grass in check, even with the mower in constant use, is very difficult, and especially so is it the case when the grass is dotted with weeds in general and Daisies in particular. Such things are reveling in the moisture, and tell more forcibly than at any other time how much better it is to tackle them during open weather in autumn, winter, and spring, extracting and eradicating them, if slowly, at least surely. Sometimes expressions of admiration for a Daisy-studded lawn are heard, yet probably thoughtlessly made, as these left to develop soon seed, and they scatter their seed far and wide and propagate other Daisies by myriads, so that in time grass, the truest and best of all lawn factors, is crowded out or killed. Just now lawn mowers should be run over the grass twice a week, as June is the great month of Daisy flowering. Such flower removal or destruction as can be done by the use of a Daisy rake is trifling indeed, compared with what a lawn mower can accomplish and where such machines cannot always be employed a scythe can be, and, whilst the rain is so frequent, is a very effective agent of destruction, capable of use at any time of the day. But all experience points to the fact that it is not possible to cleanse a lawn of weeds by such agents as cutting off the flowers or by using chemical sand or other elements. There is no better course than to peg away at weed extraction, mapping out a lawn into small marked areas, and cleaning each portion well before a farther area is dealt with.

### WINTER-FLOWERING TROPEOLUMS.

I SAW recently in a moderately heated greenhouse two plants of the trailing *Tropæolum Fire King* then in full bloom, from which the gardener said he had picked hundreds of flowers during the winter. The plants were growing in 10-inch pots, one being placed on the stage at each end of the house, the plant growth being then tied to wires running along just under the roof. Amateurs would find in plants of any of these winter-blooming and trailing *Tropæolums* most useful flowering material. The plants should be got strong and into pots of the size named early in September. They will then in any ordinary greenhouse and trained as advised, close under the roof, bloom profusely all the winter. Small scarlet-flowered varieties like the one named are best. The more often flowers are gathered the more the plants seem to bloom, but that is doubtless due to the roots becoming somewhat pot-bound with age, thus conducing to free flowering. These plants propagate freely by means of cuttings.

A. D.

### TSING I, OR CHEUNG HUE ISLAND.

(Continued from Vol. LXI, page 422)

I AM afraid that I have unconsciously wandered from Cheung Hne for a few moments, but there is not much difficulty in returning to it again. Very few Orchids were observed, but that must not be taken to mean that the island is deficient in this particular class of plants, as the time at my disposal was only



sufficient to take a very cursory glance at its vegetation. *Phaius grandifolius* and *Goodyera procera* were growing in moist shady places in the woods, and *Habenaria Susannæ* in flower on the slopes of the hills in long grass. A plant, of which several specimens were seen, and which was interesting, as it is not found in Hong Kong, was *Clerodendron cyrtiphyllum*. It is a shrub 3 feet or 4 feet high, and bears large terminal cymes nearly 1 foot across of greenish white flowers. The flowers are not large, the corolla tube being about half an inch long, and the lobes two lines and one line broad. The leaves are oblong lanceolate, 5 inches to 6 inches in length, on petioles of nearly 2 inches, glabrous on both sides, dark green above and pale green below, with the veins prominent on both surfaces. Growing in the Paddy (Rice) fields *Ceratopteris thalictroides* and *Monochoria vaginalis* were doing well. *Morinda umbellata* with its red fruit looked very pretty trailing over shrubs and boulders. Another climber, and a very common one, too, and one which it is not advisable to handle roughly, unless one has no olfactory organ, is *Pæderia foetida*. It is an old friend, as I first made its acquaintance at Kew. There was a plant in one of the houses trained to one of the rafters, and, of course, it required tying in at times, and on such occasions visitors to this particular house, I have no doubt, blessed the person who first invented handkerchiefs. It is an exceedingly pretty thing when in flower, as the flowers are produced in abundance in cymes towards the end of the branches, the whole forming long, loose, graceful panicles. *Phoenix acaulis*, not by any means aptly named, as it has often stems 5 feet or 6 feet high, was in fruit, its large panicles of orange-coloured drupes making it a very showy plant. *Drymoglossum carnosum* covered the trunks and branches of many trees, and *Gleichenia dichotoma* clothed the hillsides in places. The little yellow-flowered *Utricularia diantha* and *Drosera Loureiri* were thriving together in small swamps. The Castor Oil Plant and *Bryophyllum calycinum* were, as usual, found near habitations. A few other plants noticed in the woods were one or two species of *Calamus*, *Grewia glabrescens*, *Ixora striata*, *Lasiacanthus chinensis*, and *Callicarpa macrophylla*. A couple of *Ipomæas* were noticed, *I. digitata* trailing over *Pandanus fascicularis*, and *I. tuberculata* smothering many shrubs in various localities. *Bæckea frutescens* was very common in sunny situations on the hillsides, and our old friend *Pteris aquilina* was not at all uncommon on the summits of some of the hills. On the low levels *Cardiospermum Halicacabum* was creeping over low-growing shrubs. There are many islands in the neighbourhood of Hong Kong which would well repay a visit botanically, but the cost of getting to them is prohibitive to ordinary individuals.

W. J. TUTCHER.

Botanic Gardens, Hong Kong.

### ROSES FOR DECORATION.

It is not the grand Roses of the Hybrid Perpetual and Tea kinds only that are beautiful for house decoration; indeed, it may well be a matter of doubt whether the so-called garden Roses are not on the whole the more useful. In the hands of a good decorator they certainly lend themselves to a very great variety of beautiful treatment, for, derived as they are from a large number of species, their ways of growth, habit of inflorescence, and character of foliage show nearly every variety of beauty of which Roses are capable. So we may have arching sprays 3 feet to 4 feet long of the old

and new rambling cluster Roses, beautiful free bunches in several ranges of charming colouring of the more free growing Teas and the Hybrid Teas, closely tufted posies of the pretty Pompons, and large arrangements of the hybrid Sweetbriars and of such grand growers as *Reine Olga de Wurtemberg* and *Mme. Alfred Carrière*.

Nothing is more delightful in their season in our rooms than some of the old garden Roses, the Cabbage and Moss Rose and the double white Rose of cottage gardens, with its variety *Maiden's Blush*. One old favourite, the pink China or Monthly Rose, well deserves the latter name, for in every month wherein a Rose bloom is possible in England the trusty China may be depended on to give it. Beginning to bloom in May in some sunny corner of sheltered wall, the illustration shows how it may be cut in good bunches in October, and even in November there may often be blooms still in fair condition.

Another point should be remembered to the credit of the garden Roses, that the great Hybrid Perpetuals, beautiful though they are when freshly gathered, soon lose their beauty in water, and many of the red colourings begin, even the second day, to turn an unpleasant colour. The Teas and Hybrid Teas are much longer lived.

G. J.

### EDITOR'S TABLE.

#### PINK A. W. PEARCE.

Mr. Ernest Ladhams, Shirley Nurseries, near Southampton, sends flowers of this charming Pink; it has very stout and broad petals, pure rose in colour, with a deep crimson base. The stem is strong, and flowers are produced in profusion. It is one of the best Pinks of its colour. Mr. Ladhams says both this Pink and

#### PINK SHIRLEY WHITE

are perpetual flowers, and we owe much to Mr. Ladhams for raising so many of this race. Shirley White, as the name suggests, is a white flower, held well within the calyx, very sweet scented, and with strong stems. These varieties are, we understand, to be sent out in the autumn.

#### IRIS VIRGINICA.

Mr. Ladhams also sends flowers of this pretty purplish lilac Iris with this note: "I. virginica does not seem to be well known. Note the 'fruity' scent (like ripe Plums, I think). The flowers I



AN OCTOBER NOSEGAY OF CHINA ROSES AND IVY.

send are the second opened from the sheath. The plant is very hardy and quite easy to grow.

#### GEUM COCCINEUM PLENUM.

Mr. Ladhams also sends an exceptionally fine variety of *G. coccineum*, very double and intense in colour.

#### PYRETHRUMS SINGLE AND DOUBLE.

Mr. E. Potten, Camden Nurseries, Cranbrook, Kent, who, it will be remembered, showed recently that beautiful new climbing Rose Dorothy Perkins, sends several beautiful varieties of Pyrethrum, all of good and effective colours. Of the single varieties, James Kelway is as fine as any, a flower of intense crimson colour. A large bunch of this is as good in colour as almost anything from the garden at present; Warrior is a large, pure rose-pink flower, a clear and beautiful colour; Mary Anderson, blush pink; and Queen of May, bright rose, are also very beautiful singles, and should be made note of for grouping in the garden. Mr. Potten sends one double variety, Nancy, the centre of the flower yellowish and the outer petals pink.

#### LILACS FROM CUTTINGS.

I am sending some Lilac blooms; they are from plants (four years old) from cuttings. I had to cut them rather short in the stalk, as I did not wish to spoil some nice young shoots growing close up to the flowers. I am afraid Lilacs do not travel very well, and they have far to go.—N. B.

[A delightful contribution to our table. *Mme. Lemoine* was exceptionally beautiful, and we draw attention to the fact that the plants are from cuttings and not grafted. A grafted Lilac is a mistake. We hope those who have suffered from



this evil will take our correspondent's advice to heart and get the shrubs from cuttings.]

We have received the following interesting flowers from Messrs. Thyne and Paton, Union Street, Dundee, with our correspondents' remarks. They write: "A few blooms of five most interesting and beautiful flowers, each plant of strong and free growth and perfectly hardy."

#### ERIGERON AURANTIACUS.

The bright orange colouring of this useful plant is very welcome. It is very free, of compact growth, 9 inches to 1 foot high, and a worthy addition to all mixed borders and rock gardens. A good form.

#### ONOSMA TAURICUM.

The tubular flowers of golden yellow colouring are very agreeably scented; it is very free, and has evergreen foliage.

#### ASTER PEREGRINUS.

A lovely flower of light mauve colour, very compact, about 9 inches high, and a decided acquisition.

#### TROLLIUS JAPONICUS FL.-PL.

The flowers of this plant are of a glowing orange, with darker centre; a very showy and effective plant about 1 foot high.

#### RANUNCULUS SPECIOSUS PLENUS.

Bright double yellow flowers, a very compact and free flowering plant, about 9 inches in height.



ILICIIUM RELIGIOSUM.

[A very interesting contribution to our table of flowers now in beauty in the garden.]

#### ILICIIUM RELIGIOSUM.

"P." sends a flowering shoot of this interesting shrub; its flowers are creamy white, and, as the illustration shows, produced freely. The shoot sent was cut from a bush in the open air in Devonshire. We lately noticed it quite happy in Mr. Leney's interesting American garden at Saltwood, near Hythe.

#### LUPINUS POLYPHYLLUS.

I am sending for your "Editor's Table" two flower-spikes of *Lupinus polyphyllus*, as I thought that you might be interested in their colouring, which is more curious than pretty. They come from a large plant, whose flowers have up to this season been of the normal deep blue, but have all turned out mauve and white this year. Is it possible that the variation may have been caused by the presence in the same border of the annual species, *L. hybridus atrocoeruleus*, which would be in full bloom when the *L. polyphyllus* was flowering for the second time late in August? There was also a bush of *L. arhoreus* (the yellow variety) close by.—A. K. DUNDAS, *The Burrows, Charles Hill, Farnham*

[If you are quite sure of the plant having

always previously produced flowers of the normal colour, the examples sent are interesting in their present sportive form, and such instances of complete change are quite rare. There is no possible hope of the change being due to the near presence of the annual kind. Indeed, any cross-bred agency of this kind could but have effect on the seed crop of last year, and therefore in the seedlings resulting therefrom. Are you quite convinced that your original plant has not perished, and that an inferior seedling variation has not gradually and unnoticed grown up near, and is now flowering for the first time? *Lupinus polyphyllus* frequently dies out after, say, a triennial flowering, and a young plant could easily grow up quite near without being noticed. The spikes of bloom sent are so entirely that of an inferior seedling variation that we imagine something like this has taken place. The fact may easily be determined by close inspection of the rootstock 3 inches below ground.]

#### SWEET PEAS AND CORNFLOWERS FROM IRELAND.

Mr. Baylor Hartland sends from Cork a delightful gathering of Sweet Peas and Cornflowers, the former showing a charming range of colouring, with this note: "I send you bunches of Sweet Peas and Cornflowers from seed sown at Anfaun in October, 1901. I see by your notes what growers have had to contend with lately, so it may interest them to know what can be done here. The flowers were not specially selected."

#### NEW POPPIES.

Mr. Perry sends from Winchmore Hill two new Poppies, which for size of flower and colouring should be made note of. One is Mrs. Marsh, a large, finely coloured flower orange with a sort of whitish variegation and black base. The colouring is quite distinct, and this variegation is pleasing. Medusa is a large handsome flower of a salmon rose colour, an unusual shade.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### HARDY CYPRIPEDIUMS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In my notes on these (pages 409-410 of THE GARDEN for June 21) a curious error occurs in a rather important passage. I am made to say "essential" in place of "inimical." Indeed, it was this latter word to which I desired to take exception, and the way in which it was employed by Mr. Mallett when referring to these hardy Cypripediums in a former issue of THE GARDEN. In this particular instance Mr. Mallett stated in effect that the presence of lime was "inimical" to these plants. My object in directing attention to the word is, primarily, to point out where Mr. Mallett has erred in thus embodying all these hardy Cypripediums under this remark; and, secondly, to assure your many readers that not only is lime or chalk not only *not* inimical, but that some species are well known for their fondness for calcareous soils. This statement is backed not only by my own practical knowledge of many years but by many others. Take *Cypripedium Calceolus*, for instance. In "Alpine Flowers," over twenty years ago, Mr. W. Robinson writes: "I have never seen this fine plant nearly so well grown as by Mr. James Backhouse of York. He plants it in an eastern-shaded aspect of his rock-work, in rich, deep, fibrous loam, in narrow, well-drained fissures between limestone rocks." Comment on this is needless. No greater authority on hardy plants ever lived than Mr. James Backhouse.

Concerning the same species Mr. A. D. Webster, the well-known authority on British Orchids, writes in his book of this title at page 87: "I have been most successful by using a mixture of strong yellow loam, that of a silky, fibrous nature

is best, freely mixed with sharp river sand and a few pieces of broken limestone, &c." Further on the same authority remarks that the ordinary soil should be removed a certain depth, "half fill the hole thus made with the above compost, on it spread an inch-thick coating of rough sand freely co-mingled with well broken up limestones, place the plant on this . . . the remaining portion of the hole to be filled up with loam, sand, and pieces of limestone." I cite the experience of these men to prove that, far from being "inimical," limestone is not only regarded as beneficial, but is studiously placed in close proximity to the roots of a species that in Nature has been often found growing on calcareous formations.

What is true of the one species named is true also of other kinds, and if the soil mixture given by Mr. Webster were more often employed for such as *pubescens*, *parviflorum*, *acaule*, and others, a success far more permanent and lasting may often be recorded where failures now ensue.

It is singular that error should have arisen in the most important word of my former note, and though my argument was quite clear and plain in the context, it still may follow that some of your readers will be confused, hence this explanation concerning a group of hardy flowers that should be more cultivated.

E. JENKINS.

### PRUNING AKEBIA QUINATA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note the reference to the pruning of this climber by Mr. Clark (page 389). This is certainly different to my experience. *Akebia quinata* has flowered here on an east wall profusely for the last seventeen years under the following pruning treatment: Cover the space allotted with the strongest shoots, and, when new growth pushes from the eyes or spurs in the spring, do not regulate it, but summer-prune away all superfluous growth before it becomes entangled. It is from spurs that the flowers are produced, and the more these are kept clear the more matured they become and flower correspondingly. When once the allotted space is covered, what can be done with the mass of summer shoots that a healthy plant will produce? The winter is not the best time to cut away such growth. It is too late then for the spurs to ripen.

South Hants.

E. MOLYNEUX.

### RAPID VINE GROWING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The note from "A. D." on "Rapid Vine Growing" in THE GARDEN for June 14 presents some features of interest if not of novelty. To what extent this style is adopted in private gardens I am unable to say, but doubtless the growers for profit make an extensive use of it. Taking charge of these gardens in the spring of 1900 it was proposed to remove what vine accommodation there was here and erect new houses. A number of Vine eyes were put in during February in that year at East Thorpe, Reading, for use here. From these a quantity of Vines were grown on, their last shift being into boxes 14 inches square and 6 inches deep. These were finished off in the usual way, and those required for planting were transferred to the borders in April, 1901. They had been pruned to about 2½ feet from the soil, which would allow two bunches each the same year to finish off well. This season the same Vines are carrying six bunches each of good size with every promise of finishing perfectly. The borders are inside, and the average width is only 18 inches, the same in depth, and the Vines did so well that it was not thought advisable to increase the border this year. When comparing notes with Mr. Barks we find that in 1900 he planted strong pot Vines and we had just put in our eyes. In 1900 he took four bunches, and we took two from the Vines; this year he has ten bunches and we have six, with Vines at least a year younger, showing but little difference in the rapidity of the system. The varieties that are accomplishing this are Black Hamburg, Foster's Seedling, and Madresfield



Court. The Vines not required for planting out were not pruned so close down but allowed to remain in the boxes, placed on a stage, and finished off, in the case of Black Hamburgh and Lady Downes' six bunches being allowed, and in that of Black Alicante four bunches each. I think it is possible to do even quicker than this. Some five or six years ago we put in eyes in February and grew them until they required a shift from a 5-inch pot. They were then planted out in a border 18 inches wide and the same in depth, and by the end of the season had made up and finished nice canes. During the winter they were pruned to 5 feet in length, and the next season carried and finished four good bunches, most of them fit for exhibition. These were Black Hamburgh. The following year these Vines carried six bunches without any increase of border space, and were probably better than the previous year. At the end of that season the houses were taken down. The houses in which the Vines are growing are small lean-to ones, with a rafter only 10 feet to 12 feet in length.

Wokefield Park, Berks.

J. WOOLFORD.

### GENISTA MONOSPERMA.

UNDER the name of *Spartium monospermum* this shrub was figured in the *Botanical Magazine*, t. 683, about a century ago. It is not by any means so useful for general purposes as many of the other *Genistas*, but is a rare and interesting plant and worthy of being included in a general collection of shrubs. It is found

in various parts of Southern Europe, notably in Spain, Portugal, and Sicily. The illustration gives a good idea of its loose, twiggy habit, resembling to some extent a loose growing plant of the white Spanish Broom. It grows to a height of 6 feet or more, and in early spring bears a few simple lanceolate leaves sparingly scattered over the branches; these, however, fall before the flowers open in July. The flowers, which are small and white, with a few reddish spots on the standard and a brown calyx, are crowded together on short stalks from the sides of the branches. The fruits are small and contain but one seed each. It grows under similar conditions to other *Genistas*, and is increased by means of seeds. In very exposed situations it would probably prove tender, especially when young.

W. DALLIMORE.

## GARDENING OF THE WEEK. INDOOR GARDEN.

HUMEAS.

SEED should be sown now by those who care to have large plants. For smaller plants sow again in August. There is no difficulty whatever in raising the seed or growing the plants, but it must be clearly understood that in all stages of growth they must have unremitting attention. A rule

which should be rigidly enforced is that of careful watering, though, as the plant is a rapid grower, it must not suffer for the want of water. If possible afford rain or soft water; hard water will retard their growth. This plant is also especially susceptible to a dry atmosphere. Fill the pots or pans to within half an inch of the top with a light porous compost, and see that the drainage is good. Sow the seed evenly, and sift over it a dusting of fine soil. Place the pans in a moist, warm, shady position, and cover with a sheet of glass, which will check rapid evaporation. When the seedlings have made a little progress they must have as much light and air as they can endure without giving them a check. There are three sorts, all well worth growing, *H. elegans*, *H. purpurea*, and *H. alba*.

### HERBACEOUS CALCEOLARIAS

that are forward enough should be pricked off into pans or round the rims of small pots of sandy soil. Water with care, and shade. When established give air, and daily increase it, as the more air that can safely be given the better.

### CHINESE PRIMULAS.

Plants in small pots should be moved into larger ones as may be necessary, but never until the pots are well

filled with roots, and always pot firmly. Later batches of seedlings should be potted into small pots. *Cinerarias* require similar attention. Keep a sharp look out for aphids, to which these are subject. Fumigate on its first appearance. Mildew is sometimes troublesome, especially when the plants are weak. For this pest dust the foliage and soil with flowers of sulphur.

### THE STOVE.

In this structure there should be frequent damping of the stages and paths to compensate for the rapid evaporation of moisture during hot and dry weather. Many plants, such as *Crotons*, *Acalyphas*, and the like, which have filled their pots with roots, will be benefited if repotted. The materials used should be of the best, and suitable to the various subjects, making sure that the drainage is well arranged. Plants for decorative purposes may be kept in small pots and receive frequent applications of weak liquid manure. Many of the stove climbers in large pots or tubs will benefit if given weak liquid manure occasionally. Tie and regulate the young growths of these plants as occasion may require, tying in loosely the shoots so as to permit of their foliage and flowers being effectively displayed.

JOHN FLEMING.

Wexham Park Gardens, Slough.

## THE KITCHEN GARDEN.

### CELERY.

THE earliest plantings will now be growing away freely, the wet season having favoured the crop. Each plant should be carefully examined and all split leaves and side growths removed. Keep the soil constantly stirred up on the surface, give frequent small doses of artificial manure and soot, and every inducement to make a free, rapid growth. Damp overhead twice daily in fine weather and water freely at the roots.

No time should be lost in completing the planting of the latest sown plants if not already done. It is a capital plan to arrange for the trenches to be got out between the lines of early Peas, the latter affording just sufficient shade to enable the Celery plants to get over their removal quickly. Plant double lines at this season and shorten back the longest leaves if at all drawn. Lift with good balls and plant very firmly.

### PEAS.

I never remember the Pea crop so late as this year. Owing to the absence of sun the pods do not fill. Those which should have been ready for picking the first week in the present month are not at this date (June 18) nearly fit, but there is every promise of an abundance later on. The latest sowings should be well thinned and securely staked. Apply black sulphur to ward off attacks of mildew.

### FRENCH BEANS.

Make another good sowing of Canadian Wonder on a south border. A capital Bean also for late work is Wood's Centenary, a white podded kind, which is very prolific, of good flavour, and said to be stringless, but in any case it remains a long time before being too old for the table.

### BROAD BEANS.

All late sowings of these will have to be kept well syringed with insecticide to keep them free from black aphids, which is sure to put in an appearance at this time of year. Strong soft soap and water will answer well, as it is both safe and effectual. Stop the growths in good time, mulch between the rows, and water liberally in dry weather.

### WINTER GREENS,

such as Broccolis, Kales, Savoy, Brussels Sprouts, and the like should be planted as ground becomes vacant. Broccolis of all kinds should be given exposed positions, the ground made quite firm, and allow good distances between the plants, as the more hardy and solid the growth the more likely are they to come safely through the winter, and, indeed, this applies to all the Brassica tribe, but more especially Broccoli.

### SPINACH.

Make good sowings on well-prepared ground in



GENISTA MONOSPERMA.



cool parts of the garden and thin out that which is just above the ground. Keep the surface well hoed and apply a little patent manure in showery weather. Good Spinach is generally very difficult to get during July and August when the weather is hot and dry, consequently a little extra trouble is well repaid.

#### ENDIVE.

Make further sowings of both Curled and Batavian on the later planted Celery ridges, and thin out the earlier sowing to 1 foot apart. Strenuous efforts will have to be taken to free the crops and produce from weeds, and advantage should be taken on fine days to this end. It is now some years since these have caused so much trouble, for owing to the continuance of showery weather it has been impossible to kill them.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

## THE FLOWER GARDEN.

### HARDY FLOWERS.

THESE are now so much appreciated and admired that a border of hardy herbaceous plants is essentially a feature and almost indispensable to the successful arrangement of every flower garden. Though some have the idea that after planting there is very little further to be done in connexion with this class of plants, it is a great mistake, for unless the border is attended to both with care and regularity, no matter in what manner it has been arranged, it soon becomes disappointing. At the present moment there is much to be done on the borders, staking some of the taller-growing plants, such as Delphiniums, Hollyhocks, &c., which should be done neatly and effectually, and in pegging down others, such as Verbenas and Phlox Drummondii, thinning out the growths of strong growers, cutting off flowers that are over and keeping the whole border free from weeds. Besides this many plants require a little special

treatment, especially during the abnormally cold wet season experienced up to now. For instance, the Calochortus and Portulaca, which fare so badly when the soil is sodden, and the Eremurus, whose blooms to keep them in perfection should be guarded from the effects of the rain, while in addition arrangements should be always made for filling up gaps that may occur, either by planting out from pits or resowing according to circumstances. The present and next three months to come are wonderfully rich in hardy flowers, and during this time hardy herbaceous borders should be most interesting and attractive. A very pretty sight in one of the borders here is just over through a large mass of

### INCARVILLEA DELAVAYI

having ceased flowering. For three weeks or more this beautiful bright flower has been a charming sight, and was much admired by all who saw it. Last year I saved seed of some of the best flowers and sowed it in January in heat, and now have a fine batch of strong healthy seedlings in 4-inch pots, which I have no doubt will flower in their permanent quarters next season. The Incarvillea I find requires a warm sunny border with not too much moisture in the winter.

HUGH A. PETTIGREW.

*Castle Gardens, St. Fagans.*

## THE FRUIT GARDEN.

### THINNING FRUIT.

THIS is a matter that does not always receive the attention it deserves, and far-reaching injury often results from its neglect, as it is not only the quality of the fruit that suffers, but the health of the tree may be seriously impaired by over-cropping. Apricots and Peaches have previously been alluded to, and Apples, Pears, and choice Plums now demand attention. Precise instructions with respect to the extent thinning should be carried to cannot well be given, as so much depends upon the tree's condition, the natural size of its fruit, &c., but in thinning the largest perfect fruits should always be retained, while small and otherwise imperfect ones should be removed. A robust tree will safely mature a much greater weight of fruit than a weakly tree of the same size, and the same remarks apply even to the branches upon a tree. By attending to details of management of this description the balance of growth upon a tree can be in a great degree regulated, and it may be added that necessary thinning should be done early so that needless exhaustion is avoided.

### STRAWBERRIES.

The needful supply of runners, both for planting in open quarters and for potting on for forcing, should as soon as they can be procured be layered in 3-inch pots firmly filled with rich loam and a little fine manure from a spent Mushroom bed. Avoid crowding the plants. Arrange the pots as far away as possible from the parent plants, so that the growth of the young plants is not weakened, and on no account allow them to suffer for want of water. Keep the parent plants also well nourished and surplus runners removed. The strongest runners of one year old plants are the best material to select for layering, and they should be relieved of extending growths and not severed from the parent plants until the pots are well filled with roots. They should be placed upon a bed of ashes in a partially shaded place for a week or so before they are potted in fruiting pots or planted out as the case may be.

### PREPARING FOR PLANTING.

Strawberries should be planted upon land that has been deeply worked some time before. We usually plant our main crop upon a plot that has been trenched in the autumn and heavily manured for early Peas, after it has again been dug and manured as soon as the Pea crop is over. Land treated in this way, if broken over immediately before planting time, is in good condition for planting. A south or west border is, however, found for a plantation of Royal Sovereign and others to supply an early gathering for dessert, and a north border for Latest of All, &c. for late

use. One year old plants produce the largest fruit, and are chiefly depended upon for dessert, and no plants are kept for any purpose after the second year.

### VARIETIES FOR FORCING.

Royal Sovereign, La Grosse Sucrée, Sir Charles Napier, Sir J. Paxton, President, &c., are reliable varieties for this purpose. The first-named, however, although some of the others are better flavoured, is most generally grown. Its handsome appearance and good forcing character cause it to be highly valued. To these may be added for outdoor culture Ganton Park, Late Pine, Dr. Hogg, Waterloo, Latest of All, and British Queen. The latter requires a moderately light soil. Of new varieties Trafalgar, Fillbasket (a heavy copper), Mentmore, and The Laxton, which is to be distributed this season, are handsome varieties, while Antoine de Padoue is valuable for late use.

T. COOMBER.

*The Hendra Gardens, Monmouth.*

## THE ACME BLOOM PROTECTOR.

THIS device for protecting the flowers of the Rose, Dahlia, Chrysanthemum, and other plants, the invention of Mr. Richard E. West, of Reigate, is of considerable importance to all gardeners, and more particularly to those who grow these flowers for exhibition; to the latter, indeed, it is invaluable. The accompanying illustration of the bloom protector explains itself almost sufficiently, but we may just point out its advantages and its manner of working. In the first place it can be adjusted rapidly in any position, and the galvanised steel spring allows the height to be fixed instantly. Rigidity is secured by a square socket working on a square stick, the former being held firmly against the latter by a galvanised steel spring, thus effectually preventing the protector being blown round by the wind, and doing away also with all liability to bruise the bloom. The protectors only weigh a little over 2oz. each, including socket and frame, so that it is unnecessary to say they are extremely light. They have also the excellent attribute of durability, for they will last for years and may then be re-covered at only a trifling cost. Although the covering material (calico) is not in itself waterproof, experience has proved that the angle at which the protector is made causes the water of the most severe rainstorm to run off at the edge, and not to penetrate the cover and damage the bloom. Mr. Richard E. West, Reigate, Surrey, is the inventor and patentee of this most useful device, and from him fuller particulars can, if necessary, be obtained.

## SOCIETIES.

### ROYAL HORTICULTURAL SOCIETY.

EXHIBITION AT HOLLAND PARK, JUNE 24 AND 25.

THIS was one of the most interesting exhibitions that has ever taken place under the auspices of the society, but marred by the unfortunate illness of His Majesty the King, as recorded elsewhere. The Roses were not plentiful, owing to the season, but Orchids, hardy and indoor flowers were superb.

### ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (in the chair), Messrs. James O'Brien, J. Douglas, H. J. Chapman, J. W. Odell, H. Little, F. A. Rehder, H. A. Tracy, W. Boxall, W. H. White, W. H. Young, N. C. Cookson, J. Charlesworth, J. Colman, H. M. Pollett, F. Sander, F. W. Ashton, H. T. Pitt, W. A. Bilyeu, and J. Cypher.

Messrs. F. Sander and Sons, St. Albans, were awarded a gold medal for one of the finest groups ever shown at an exhibition of the Royal Horticultural Society. Not a single indifferent species or variety was to be found. At the end of the group was a fine plant of Epidendrum prismatocarpum, with eighteen spikes of flowers. The Cattleyas, Lælias, and Lælio-Cattleyas were remarkable both for variety and excellence, the most prominent being Lælio-Cattleya Aphrodite King Edward VII. (Mendelii x purpurata), the sepals and petals almost pure white, the immense lip rich crimson-purple, with yellow in the throat; L. C. canhamiana (Mossie x purpurata), in numerous varieties; L. C. Our Queen, the sepals and petals of which are almost white, lip white on the outer margins, with a deep blotch of purple covering the central area, shading to yellow in the throat; Cattleya H. G. Selfridge (superba x Aclandiae), showing the influence of the superba parent in the intense



MR. RICHARD WEST'S ACME BLOOM PROTECTOR.



purple marking of the segments; C. Prince Edward (Warszewiczii  $\times$  schilleriana), the influence of both the parents could be distinctly seen in the offspring; and C. Warszewiczii in its finest forms were included. C. Mossie, both in white and dark forms, was extensively represented. Cochlioda noezliana, with fourteen spikes of flower, were in striking contrast to the white Odontoglossums which surrounded it. The principal Odontoglossums were O. crispum Princess Helene, the sepals and petals white, faintly tinted with rose on the outer margins, the central area being almost entirely covered with a distinct blotch of bright brown, the lip white, shading to yellow, with numerous brown markings covering the surface; O. c. Imperatrix, the finest Odontoglossum in the show, the outer and basal area white, faintly tinted rose, the central area being covered with rich purple markings, the lip white, yellow on the crest, having a brown blotch in the centre of the lip; O. c. Princess Victoria, a most attractive variety of the O. c. Starlight section, the markings being most prominent on a rose-tinted surface; O. c. Princess Beatrice, which belongs to the O. c. cooksonianum section, with redder brown markings on a white ground; O. harvengtense, which has white, faintly tinted yellow sepals and petals, the petals spotted with brown, the sepals heavily blotched and barred with the same colour. Among the better varieties of Miltonias the most prominent were M. vexillaria Queen Alexandra, with immense white segments, the petals faintly tinted with rose, the lip having three purple lines in front of the yellow disc. M. v. radiata has the sepals and petals pale rose, the lip white, with a large area of purple on the disc, in front of which are radiating purple lines. Several fine Cypripediums were also included.

Messrs. Charlesworth and Co., Heaton, Bradford, were awarded a silver cup for a grand display of finely grown and beautifully arranged Orchids. The back row was filled with splendidly flowered plants of Oncidium macranthum, O. crispum, and O. sarcodes. The Cattleyas made a brilliant display, and included such species as C. Mossie in various shades of colour, Miltonia vexillaria, Cochlioda noezliana, &c. The hybrids were very interesting, the most prominent being L.-C. Aphrodite alba, with pure white sepals and petals and an intense purple lip; L.-C. Martinetti (Mossie  $\times$  tenebrosa); several fine varieties of L.-C. canhamiana, including L.-C. Lady Wygram in one of its finest forms; L.-C. Lady Millar (cinnabarina  $\times$  granulosa), the sepals and petals clear yellow, lip purple, lined with yellow, a most attractive plant; and L.-C. Phoebe (cinnabarina  $\times$  Mossie) in various tints of yellow were well represented. L.-C. G. S. Ball (cinnabarina  $\times$  Schroedera) was also well exhibited. Among the numerous grand forms of Odontoglossums were O. harryano-triumphans, which has the intermediate characteristics of the parents indicated in the name (a remarkable hybrid); O. crispum punctatissimum (Princess Mand), the sepals and petals pale rose tinted, thickly covered with miniature rosy purple spots in the central area of each of the segments, the broad lip white, shading to yellow on the disc, with a large chocolate blotch in the centre, and smaller spottings on the side lobes; and O. Alexandra Reginae, a most attractive natural hybrid between O. grande and O. Insleyi, showing the intermediate characters of both parents. It was certainly one of the finest groups ever staged by the firm.

Mr. J. Cowan, Gateacre, Liverpool, was awarded a silver-gilt Flora medal for a fine group of Odontoglossum crispum, Cypripedium in variety, grand forms of Cattleya Mendelii, C. Mossie, Lelia digbyana, Lelia tenebrosa, Dendrobium suavisimum, Epidendrum vitellinum, and other Orchids.

Messrs. Stanley, Ashton, and Co., Southgate, N., were awarded a silver-gilt Flora medal for a beautiful group of finely-flowered Odontoglossum crispum. Also shown were many fine varieties of Cattleya Mossie, C. Mendelii, Lelia tenebrosa, and numerous fine hybrids. Several finely-grown and flowered plants of Mexican Oncidiums were also included.

Messrs. Hugh Low and Co., Bush Hill Park Nursery, Enfield, were awarded a silver-gilt Flora medal for a fine group, consisting of fine varieties of Cattleya Mossie, including the pure white C. M. Wagnerii. Among the numerous beautiful C. Mendelii was a pure white, with pink blotch in the centre of the lip. C. intermedia alba, with its pure white flowers, Lelia purpurata, and L.-C. canhamiana were well represented, the sensitive-lipped Masdevallia muscosa, with numerous flowers, Vanda Hookeri, V. Miss Agnes Joaquim, and other interesting Orchids were included.

Sir F. Wigan, Bart., was awarded a silver cup for a grand display of rare species, hybrids and varieties. The back row included two grand plants of Sobralia kienastiana, pure white; S. Wiganie, pale rose-tinted sepals and petals, with a broad rose-tinted lip, in the way of S. Veitchii; C. Mossie celestis, with a tint of blue on the front lobe of the lip; C. M. Wagnerii, white, except the yellow in the throat; C. Prince Edward (schilleriana  $\times$  Warszewiczii), Lelio-Cattleya Eximia (purpurata  $\times$  Warnerii), L.-C. arnoldiana, and L.-C. canhamiana were well represented. Miltonia vexillaria gigantea, a grand variety, intense rose, with a white area around the disc; Phalenopsis grandiflora, Thunias, and other Orchids were also included. The group was arranged with Mr. W. H. Young's usual good taste.

J. J. Colman, Esq., Garton Park, Reigate (gardener, Mr. W. P. Bond), was awarded a silver-gilt Flora medal for a group of beautifully arranged Orchids, consisting of Oncidium macranthum, Odontoglossum crispum, Cattleyas, Miltonias, and Cypripediums in variety.

Sir Trevor Lawrence, Bart. (gardener, Mr. W. H. White), was awarded a cultural commendation for a fine basket of Habenaria rhodochile and Maxillaria securitilis, with ten scapes of flower.

H. Little, Esq., The Barons, Twickenham (gardener, Mr. A. Howard), sent fine varieties of Cattleya Mossie and Lelia purpurata.

Mr. W. P. Burkinshaw sent one of the finest varieties of Cypripedium Godefroyae leucochilum we have seen, the ground colour pale yellow, veined, barred, and blotched with bright brown-purple. The plant carried two flowers.

#### NEW ORCHIDS.

First-class certificates were given to the following:—

*Miltonia vexillaria* var. *Queen Alexandra*.—This is a very large and beautiful flower, pure white, except for a pale yellow centre and a few faint markings of pale red just around. The size of the flowers and their purity of colour make this new variety so remarkable. From Messrs. Sander and Sons, St. Albans.

*Lelio-Cattleya Aphrodite King Edward VII.*—A very handsome flower, with broad, drooping petals; the sepals and petals are almost white; the lip is very large, and of a rich purple colour; the throat is yellow, except for some markings of reddish purple below the column. From Messrs. Sander and Sons, St. Albans.

*Miltonia vexillaria gigantea*.—This beautiful variety of M. vexillaria has large flowers of a rich rose colour, with a yellow eye and white markings beneath. It is a flower of striking beauty. From Sir Frederick Wigan, Bart., Clare Lawn, East Sheen (Orchid grower, Mr. W. H. Young).

*Sobralia Wiganie*.—A flower of distinct and delicate colouring; the large broad sepals and petals are nearly white, and

can notice faint purple markings also. From Messrs. Sander and Sons.

*Lelio-Cattleya Martinetti Prince Arthur*.—A lovely variety, with somewhat loose sepals of a lemon colour, tinged with buff; the petals are rosy buff. The lip is very handsome, beautifully frilled, and of a crimson-purple colour. From Messrs. Sander and Sons.

*Odontoglossum Harvengtense Princess Margaret*.—A choice flower heavily marked with bands of chocolate colour upon a very pale sulphur ground. The sepals and petals are fairly broad, the latter being less heavily marked than the former. From Messrs. Sander and Sons.

*Odontoglossum Alexandræ Princess Victoria*.—The petals of this fairly large flower are prettily frilled, and both they and the sepals are extensively spotted with light purple. Upon the lip are a few blotches of chocolate-brown. From Messrs. Sander and Sons.

*Odontoglossum crispum punctatissimum*.—This variety is of the rosem type of punctatissimum, and undoubtedly one of the finest yet flowered of that type. The flower is large; the toothed sepals and petals are prettily and lightly spotted with rose, the markings being heavier on the sepals. The lip is also very good. From Messrs. Charlesworth and Co., Heaton, Bradford, York.

*Zygopetalum rol cana*.—The parents of this bigeneric hybrid are Aganisia lepidia and Zygopetalum Cantieri. It is a curious and striking flower, with pale green sepals and petals marked with violet. The flat protruding lip is also heavily marked with violet-blue. The flowers are borne in an erect raceme. From Messrs. Sander and Sons.

#### FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), and Messrs. J. F. McLeod, J. Jennings, James Hudson, W. Howe, E. Molyneux



ROSA HISPIDA.

(See page 11.)

the lip is large, of regular form, and of varying shades of rose; the throat is yellow. From Sir Frederick Wigan, Bart.

*Cypripedium Godefroyae leucochilum Hesse variety*.—The dorsal sepal of this somewhat curious-looking flower is small, and the petals are large and long. All are heavily marked with deep red upon a cream ground. Exhibited by W. P. Burkinshaw, Esq., Hesse, Hull.

*Cattleya Miss Harris var. superba*.—The parents of this new hybrid are C. Mossie and C. schilleriana. It is a very richly-coloured flower, the sepals and petals rosy crimson, and the lip a more intense shade still, and slightly tinged with purple. From Messrs. Stanley, Ashton, and Co., Southgate, N.

Awards of merit were given to the following:—

*Cattleya Prince Edward*.—This hybrid was exhibited by Messrs. Sander and Sons, and also by Sir Frederick Wigan, Bart. The parents are C. schilleriana and C. gigas, and the result is a rather large flower, whose sepals and petals are a rich rose, and the lip a deep purple, with a mass of yellow at the base of the throat.

*Odontoglossum Alexandræ var. Imperatrix regina*.—This is a striking flower, having stiff and somewhat narrow sepals and petals, with wavy margins, and regularly marked with red, tinges of faint purple being also noticeable. From Messrs. Sander and Sons, St. Albans.

*Odontoglossum Alexandræ Her Majesty*.—The raceme exhibited of this variety was a bold and vigorous one, carrying twelve large flowers, with crinkled margins, and white, except for a few blotches on the lower sepals; the petals and sepals of some of the flowers were quite white. From Messrs. Sander and Sons, St. Albans.

*Odontoglossum Alexandræ Princess Helene*.—This is a flower of splendid form, with broad sepals and petals, these being marked with large blotches of reddish brown, and one

C. R. Fielder, R. Dean, G. Renthe, the Rev. F. Pace-Roberts, C. Blick, W. P. Thomson, W. J. James, R. W. Wallace, E. H. Jenkins, W. Bain, H. J. Cuthnsh, Charles Jeffries, W. Cuthbertson, R. W. Ker, N. F. Barnes, J. H. Pitt, C. W. Knowles, and C. T. Drury.

#### HARDY FLOWERS.

This department, indeed, was a great feature of the show, and gave much pleasure to the large numbers present on the occasion. We can only mention a few of the more prominent kinds.

A very beautiful group was that from Mr. Amos Perry, Winchmore Hill, who, in addition to a great variety of choice and good things, gave the visitors a welcome departure in the exhibiting of many interesting aquatic; indeed, it was a study in water gardening in miniature, large and small glass aquaria doing service for pond, or pool, or basin. We congratulate Mr. Perry for a change as welcome as it was refreshing and natural, as well as in good taste. Space forbids our enlarging further, but we take it much more can yet be done in the same direction. Water Lilies of the newer Marliac and allied kinds occupied shallow tanks at the margin, and at one end the more tender things, such as Nymphaea stellata var. N. s. zanzibarensis rubra, a gem in this set, and quite a new shade in half hardy kinds. Beyond these were many good aquatic and marsh plants, while such as Nuphar pumila, Thalia dealbata, Chrysobactron Hookeri, and the Cape Pond Weed all contributed their quota to the natural beauty of the scene. In the hardy cut flowers Calochortis, Irises, Peonies, Ixias, Tritomas, Double Rockets, Spanish Irises, Lychnis vespertina plena, and others were shown. A mass of Dianthus alpinus were very beautiful. Only a few of the good plants shown are mentioned; it was an exhibit to remember. Why a gold medal was not given we leave others to explain. Silver cup.



Messrs. Wallace, of Colchester, showed a fine group also out of their usual way, the plants being arranged on the turf, and thus better seen. The plants, too, were in fine masses, in many instances 2½ feet across. Of such things we noted *Hieracium villuosum*, *Achillea mongolica*, pure white; *Heucheras*, such as *H. sanguinea* and *H. splendens*, the beautiful *H. brizoides gracillima*, *Inula glandulosa*, a rich golden yellow; *Peonies*, Spanish *Irises*, *Gerbera Jamesoni*, *Dictamnus*, the *Calochortis*, so strong a feature of this firm; *Sparaxis Fire King*, brilliant in its three-fold colouring, and many more. *Lilies*, too, were very fine, *L. Henryi* and *L. excelsum*, both in superb groups, the former 7 feet high and full of bloom. A gold medal was most worthily given.

Messrs. Paul and Son, Cheshunt, also had a fine display, and here we noted *Lupinus Snow Queen*, *Lychnis Flos-cuculi* fl. pl., *Linum arboreum*, yellow; *Campanula mirabilis*, very beautiful with large Canterbury Bell-like flowers; some immense spikes of *Verbascum olympicum*, full of yellow blossoms; double *Rocketts*, hosts of hybrid *Columbines*, *Orchis foliosa*, the rare *Paeonia Whiteleyi* of snowy purity, and a tuft of rich golden anthers in the centre; *Gunneras*, *Onosma*, *Rodgersia podophylla*, and others equally good and showy. The single white *Peony* was a notable thing in this exhibit, commanding attention at once.

Mr. M. Prichard, Christchurch, Hants, followed with an excellent collection. The rare *Tropeolum Leichtlini*, with orange flowers; *Dianthus annulatus*, *Lupines*, *Scabecio Doronicum*, a good yellow composite for damp spots; *Irises* of many sections, the gorgeous *Oriental Poppies*, *Orchis maculata*, the beautiful *Papaver pilosum*, *Pyrethrum* in much variety, *Irises* *Leander*, very fine; *Coronilla Iberica*, and the richly hued *Potentillas* were some in this fine mass of good flowers.

A small group from Mr. A. W. Wade, Colchester, included *Poppies*, *Irises*, Spanish *Irises*, the yellow shaggy *Hawkweed Hieracium villuosum*, &c. Silver medal.

Messrs. Jackman and Sons, Woking, again showed a fine group, including many choice things. *Ranunculus* were abundant, as were the *Incarvilleas*. Spanish *Irises* were plentiful, and among the more interesting subjects we noted the webbed *Sempervivum*, *Orchis foliosa*, several hardy *Cypripediums*, the pretty alpine *Lychnis*, *L. Lagasce*, *Dianthus caesus*, *D. Napoleon III.*, with other single and double *Pinks*; various species of *Irises*, with *Campanulas*, *Aubrietias*, and others of much variety. Many bold and showy flowers were also included in this notable lot of material. Silver medal.

Messrs. T. S. Ware, Limited, Feltham, Middlesex, too, had a famous lot of things in great variety. In this case a charming lot of alpine nicely arranged and beautifully fresh were flanked right and left with showy cut exhibits. In the alpine we noted the *Gypsophila*, *Heucheras*, *Dianthus neglectus*, *Ethionema persicum*, with pale lilac flowers in club-shaped heads, many *Saxifragas*, *Primulas*, and the like, while in bolder things many fine *Lilies*, such as *L. Henryi*, *L. rubellum*, the handsome *Ostrowskia magnifica*, with its huge bluish white bells well expanded. *Paeonia albiflora* was in a superb mass, while such as *Dictamnus*, in red and white, *Primula japonica alba*, *Delphiniums*, *Phlox Snowdon*, one of the early set; *Watsonia O'Brieni*, *Irises* in much variety, *Verbascum olympicum*, a golden spire of flowers, were all bold and effective. Then in insectivorous things, *Darlingtonias* and the hardy *Sarracenias* were well shown, the white group making a most effective and telling display worthy of all credit. A new *Helenium* in this group is too good to pass by; it is a self crimson-brown of the well known *H. grandcephalum striatum*. Silver Flora medal.

Messrs. Dobbie and Co., Rothesay, showed hybrid *Columbines* and *Violas* in much variety, the latter very fresh and beautiful. Silver cup.

Messrs. Barr and Sons, Covent Garden, had a splendid exhibit extending the full side of a large tent. The chief idea was that of flowers in large masses, and in this way we noted *Peonies* in a group of 3 feet across, and represented by many lovely kinds; the same thing was repeated in *Irises* of the Spanish as well as those of *L. spuria* and *L. sibirica*. There were also *Delphiniums*, *Oriental* and other *Poppies*, *Pinks*, single and double; *Lychnis haageana*, very fine in various colours; *Phlox ovata*, *Lychnis viscaria splendens plena*, very fine; and many more far too numerous to mention. There were also many rare things and choice alpine and bulbous plants, each and all worthy of attention from the lover of hardy plants. Silver cup.

Messrs. Kelway and Sons, Langport, had one of their notable displays of *Peonies* and *Delphiniums*, the endless variety alone precluding mention of the many individual things. The *Peonies* in particular were glorious. Of these we noticed *Portia*, a singularly good white, and *Miss Ada Chambers*, satin pink with gold anthers. These were exquisite in their purity and dainty colouring. Silver Flora medal.

The Messrs. Hopkins, Cheshire, showed a mass of alpine with other dwarf subjects arranged in a bank of moss.

Messrs. J. Laing and Sons had hardy flowers mingling with other plants belonging to the greenhouse. In the former were dwarf *Thymes*, *Irises*, dwarf alpine *Pinks* and *Honeysuckles*, a very interesting display.

Mr. W. J. Godfrey, Exmouth, also set up a large group of cut *Poppies*, after the manner of those at the Temple show. Some of the colours were very charming. Silver Banksian medal.

#### SWEET PEAS, &c.

The Sweet Peas from that well-known grower Mr. Robert Sydenham, of Birmingham, were quite a feature of the show, and no one has done more of late years to promote the cultivation of the flower and reduce the varieties into something like reasonable limits than he. The flowers represented practically all the best varieties now in gardens, and therefore need not be mentioned by name; they were well set up, and attracted much attention. We hope later on to say more about the Sweet Peas grown by Mr. Sydenham. Silver Banksian medal.

That well-known amateur, Mr. Percy Waterer, of Woking, who is one of the best of private growers of the Sweet Pea also had an interesting collection. Silver Banksian medal.

Anemones of the Alderborough strain, a very beautiful race raised by the exhibitors, Messrs. Reamsbottom, Geashill Nurseries, King's County, Ireland, were conspicuous and much admired. Silver Flora medal.

Messrs. Jones and Son, of Shrewsbury, had a charming collection shown daintily, and represented by such varieties as *Lady Grisel Hamilton*, a beautiful mauve; *Salopian*, crimson; *Princess of Wales*, rose-pink; *Duchess of Westminster*, soft buff, in all fifty-five varieties, with which were also Spanish *Irises*, and other flowers, but the Sweet Peas were the chief and most beautiful feature. Silver Flora medal.

Mr. R. C. Notcutt, The Nurseries, Woodbridge, Suffolk, had a beautiful group of hardy flowers in season. We shall have occasion shortly to describe this nursery and the plants in it. The most interesting feature of the display was *Arctotis grandis*, a lovely half-hardy annual, with soft lilac-shaded flowers, not unlike those of the *Gerbera* in shape; it is a graceful flower, very easily raised, and deserves to be made a good note of. Silver Banksian medal.

Messrs. B. S. Williams and Son, Upper Holloway, had a charming group of alpine flowers, and were given a silver Flora medal. In this group was a mass of that beautiful *Verberna Ellen Willmott*, one of the best of its race.

Messrs. Carter and Co., of High Holborn, also had hardy flowers, not a conventional group, but shown on a little rock garden, a very pleasant and welcome feature; they also had the dwarf Japanese trees in great variety, besides other exhibits noted elsewhere.

Messrs. I. Cannell and Sons, of Swanley, had a tremendous mass of hybrid *Aquilegias* (*Columbines*) of tender colours and of the spurred type.

#### TREES AND SHRUBS.

Messrs. Thomas Cripps and Son, Tunbridge Wells Nurseries, Kent, had a remarkably good exhibit of hardy shrubs, consisting for the most part of Japanese Maples, of which they showed a most representative collection. At one end of the display was arranged a group of Messrs. Cripps' handsome new conifer (*Retinospora obtusa* Cripps). In the centre was a splendid specimen 6 feet to 8 feet high, and this was surrounded by numerous smaller ones. This golden conifer when fully exposed to the sun does not burn to the least. It received the Royal Horticultural Society's certificate in September, 1899. Some of the best of the Japanese Maples were *Acer japonicum aureum*, *A. j. laciniatum*, *A. carpinifolium*, *A. palmatum atropurpureum*, *A. p. dissectum*, *A. p. flavescens*, *A. p. purpureum*, *A. p. palmatifidum*, *A. p. roseum marginatum*, *A. p. sanguineum*, *A. p. versicolor*, and *A. p. DuRoi*. Particularly pretty also were *A. linearifolium* *gracilis* Cripps, *A. palmatum atropurpureum* Tunbridge, *A. p. atrosanguineum* Fieldii, all of which are new. These Maples, together with other hardy shrubs, made up a notable display. Silver cup.

Mr. John Russell, Richmond, exhibited a group of miscellaneous hardy trees and shrubs that was remarkable for its good arrangement and choice plants. Towards the back of the group were standard *Bays*, *Drazenas*, *Acer Negundo variegatum*, *Acer Leopoldi*, *Golden Oaks*, &c., and most conspicuous of all plants in the group was *Dimorphanthus manschuricus foliis argenteis marginatis*, one of the best variegated plants introduced of recent years. Other good things were *Photinia serrulata*, *Eleagnus macrophylla*, *Raphiolepis cordata*, *Tree Ivies* in great variety, *Osmanthus ilicifolius*, *Golden Elders*, &c., a very pretty edging of *Eucynmus latifolius albus*, giving a bright finish to the group. Silver-gilt medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited an excellent group of hybrid *Aquilegias* in pots, the plants were finely flowered, and the flowers individually of good colouring and size. Immense spikes of *Eremurus robustus* were arranged between the *Aquilegias*, and *Bamboos* in tubs surrounded them, and formed an effective bank of greenery. Some of the finest of these specimens were *Arundinaria auricoma*, *Phyllostachys Boryana*, *P. heterocycla*, *P. Henonis*, *P. aurea*, and *Arundinaria Simoni*. Gold medal.

Messrs. W. Cutbush and Son, Highgate, N., had a remarkable fine display of clipped *Yews* and *Box trees*. There must have been altogether several hundreds of these quaint specimens. The tall spiral and pyramidal *Yews* were arranged at the back of the group, and in front of them the smaller specimens, the *Box trees* being the more numerous. These were a very pleasing light green, and appeared to be remarkably fresh and healthy. They were clipped into all sorts of shapes, and some of the most effective were those representing arm-chairs, churches, baskets, ships, wheelbarrows, and various birds. Gold medal.

Messrs. J. Cheal and Sons, Crawley, Sussex, had an extensive group of trees and shrubs in considerable variety, many of which were in flower, while others were remarkable for their beauty of foliage. Forming a background were purple *Beech*, *Acer Negundo*, *Golden Elms*, and other tall plants. There were small and effective displays in various parts of the group of such good things as *Abies pungenae glauca*, *Kalmia latifolia*, *Thuja occidentalis lutea*, Japanese Maples, *Primonium tenax*, &c. Other plants well represented were *Cupressus lawsoniana lutea*, *Retinospora plumosa aurea*, *R. p. argentea*, and many other good hardy shrubs and conifers. Silver cup.

Messrs. John Laing and Sons, Forest Hill Nurseries, S.E., exhibited a bright and varied group of miscellaneous shrubs. There were *Bamboos* in variety, *Golden Oaks*, *Acer Negundo variegatum*, *Kalmia latifolia*, *Golden Ivies*, *Eucynmus*, a number of *Rhododendrons* in flower, including Mrs. T. Agnew and *Silvies*, several beautiful *Clematises*, *Aralias*, Japanese Maples, and others. Silver-gilt Flora medal.

Messrs. W. Fromow and Sons, Chiswick, exhibited an excellent group of Japanese Maples, between which were arranged plants of *Lilium auratum*, the large handsome flowers of which showed well against the dark foliage of the Maples. Silver-gilt Flora medal.

#### FRUIT.

Messrs. Thomas Rivers and Son, Sawbridgeworth, Herts, had an imposing exhibit of fruit trees in pots, including

Cherries, Plums, Peaches, and Nectarines. The Cherry trees were remarkably fine specimens and loaded with fruit. Some of the varieties best represented were *Elton*, *Senis de Burr*, *Early Rivers*, *Frogmore Bigarreau*, and *Governor Wood*. The Plum Trees, too, were carrying very heavy crops, particularly *Blue Rock*, *Golden Transparent*, and *Curlew*. No less good were the Peach and Nectarine trees. The latter were represented by the varieties *Cardinal* and *Victoria*, and the former by the two new varieties, *Duke of York* and *Prince Edward*, both of which are handsome Peaches, and *Princess of Wales*, which was unusually good, the fruits being of great size. Gold medal.

Messrs. George Bunyard and Co., Maidstone, exhibited a miscellaneous display of fruit trees in pots, dishes of fruit, and shrubs and hardy plants. The pot Cherries were bearing good crops of fruit for the size of the trees, and the dishes of Cherries were of excellent quality. They included the varieties *Early Rivers*, *Governor Wood*, *Frogmore Early Bigarreau*, *Early Lyons*, *Purple Guigne*, *Elton*, *Guigne d'Annonay*, *Bigarreau de Schrecken*, *Belle d'Orleans*, &c. Many well-flowered *Rhododendrons* and a great variety of hardy flowers were arranged at the back of and around Messrs. Bunyard's exhibit of fruit. Silver cup.

Mr. S. Mortimer, Rowledge, Farnham, showed a representative collection of *Tomatoes*, *Melons*, and *Cucumbers* in numerous varieties; *Cucumber British King*, which obtained an award of merit at the recent Temple show, was included. Of *Melons* there were *Ne Plus Ultra*, *Excellent*, *The Queen* (*Royal Favourite* × *Hero of Lockinge*), *Progress*, *Advancer*, and others. The extensive collection of *Tomatoes* included *Peckishol*, *Hipper 1*, *Holmes' Supreme*, *Sutton's Peerless*, *Winter Beauty*, *Duke of York*, *Apudense* (red), *Golden Perfection*, *Sutton's Suabeam*, and *Golden Queen* (yellow). Silver-gilt Knightian medal.

#### STOVE AND GREENHOUSE PLANTS.

Tuberous-rooted *Begonias* were splendidly shown by Messrs. B. R. Davis and Sons, Yeovil, Somerset. Both single and double forms were represented, but the handsome double flowers largely predominated. Some of the best double flowers were *The Sirdar*, crimson; *Mrs. Seddon*, rose-pink, with white centre; *Il. J. Jones*, *The King*, *General French*, *St. George*, *Ben Davis*, *Pandora*, and *Hawk*. A good single is *Jupiter*. The flowers in most instances were borne on stout erect footstalks, and the quality generally of a high order of merit. A gold medal was worthily given. We congratulate Messrs. Davis.

From Mr. H. J. Jones, Ryecroft Nursery, Lewisham, S.E., there came a series of groups. *Zonal* and *Ivy-leaved Pelargoniums* were freely staged, as were also show and fancy forms in a cut state. These were freely interspersed with *Spiraeas* in variety, and the effect further enhanced by the addition of *Ferns*, *Bamboos*, and *Palms*. Among the *Ivy-leaved Pelargoniums*, *Mrs. Martin*, *H.M. the King*, and *Leopard* were conspicuous. In the second tent Mr. Jones' group embraced a charming assortment of tuberous *Begonias*, both double and single forms being represented, while of the show, fancy, and decorative *Pelargoniums*, with which he has so long been identified, he had some capital plants. Silver Banksian medal.

Messrs. Wood and Son, Wood Green, N., had an exhibit of their new suspending baskets. It was an exhibit to interest every lover of decorations.

A very bright and attractive feature was the display of Mr. H. B. May, Dyson Lane Nurseries, Edmonton. This was large and of a high order of merit. *Pelargoniums*, both *zonal* and *Ivy* forms, were seen represented by well-grown plants of the better-known sorts. This group was supplemented by another smaller one of *Ferns*, *Crotons*, and other choice foliage plants, and these were beautifully fresh and clean. Silver-gilt Flora medal.

Messrs. Fisher, Son, and Sibray, Limited, Handsworth, Sheffield, had a beautiful exhibit. This embraced a large and magnificent group of stove and greenhouse plants, for which this well-known North country firm is famous. The individual plants were remarkable for their freshness and good all-round quality, both form and colour being of a high order of merit. The group was arranged in front in a series of *bays*, and the plants pleasingly disposed throughout. There were *Crotons* in variety, each well coloured; *Anthuriums*, also diverse; *Aralias* in elegant and graceful forms, and stately *Palms*, which added considerably to the general effect. Freely interspersed among the foliage plants was a splendid assortment of *Orchids*, *Cattleya gigas*, *C. Mossiae*, &c., these alone were worthy of inspection, and there were also *Cypripediums* in varying forms, and *Lelia grandis tenebrosa* in excellent condition. In this group *Croton Reidi* was very fine. Silver cup.

Mr. James Cypher, Cheltenham, in his charming display, showed an immense quantity of choice plants, and it was somewhat difficult to appreciate the wealth of material available. There were clumps of *Asparagus*, *Ferns*, and *Orchids*, each making an effective display, and *Palms*, *Pandanus*, and *Aralias* were freely disposed. In the ground-work, *Heaths*, *Ferns*, and *Orchids* were everywhere in evidence, lending enchantment to the display. At the back of the group was a large arch, with *Ferns* and other foliage plants, together with *Fuchsias* charmingly overhanging, and this was surmounted by a large *Palm*, giving a good finish to this group. Gold medal.

Another handsome group was set up by Messrs. J. Hill and Sons, Barrowfield Nurseries, and this embraced *Ferns* and other allied plants. Individual plants in this superb display had much to commend them, some magnificent specimens standing out conspicuously. *Leucostegia immersa* was very fine. *Adiantum Farleyense* and *A. macrophyllum* were each well represented, and distinctly charming was a fine specimen of *Adiantum tinctorum*, *Pteris longifolia*, and *P. Mariesii* were among the best of these plants, and one of the most pleasing *Davallias* was *D. bijensis plumosa*, *Polypodium appendiculatum*, *Gymnogramme Alstoni*, and a fine *Echeum brasiliense*; each call for special notice. Specially noteworthy also was a grand specimen of *Cibotium Schiedei*. Silver cup.

Retarded *Lily of the Valley* were beautifully shown by Mr.



W. Icton, Putney Park Lane, Putney, S.W. This was a very fine sample of these fragrant flowers, the spikes of blossom being strong and sturdy, and the bells large. The group was backed by Lilliums, Hydrangea paniculata, Acers, and Palms. Silver Banksian medal.

Mr. Martin R. Smith, Hayes Common (gardener, Mr. C. Blick), had a magnificent group of Carnations, and in this instance the Malmesbury type largely predominated. The flowers were remarkable for their size and substance, and the colours were pleasingly diverse. Healthy and vigorous growth characterised the plants, the group charming everyone who saw it. A fine mass of a yellow sort named Cecilia was the most conspicuous, chiefly on account of its size and lovely yellow colour. There were also Yeller Gal, Lord Rosebery, King Oscar, Lady Rose, Miss Maud Sullivan, Calypso, and a very chaste sort Nautilus. Gold medal.

The Cannas, from Messrs. H. Cannell and Sons, made one of the most gorgeous displays of colour in the whole of the show. The fine display made by this firm at the Temple show was quite equalled on this occasion, and, having more space for the display, the brilliancy of the general effect was most striking. The plants were remarkable for their large flowers, big trusses, and their rich and gorgeous colouring. Elizabeth Hoss is undoubtedly the best of the spotted sorts, standing out above all others. Splendid self-coloured sorts were also freely exhibited. Sorts deserving notice are Mrs. G. A. Stroblen, rich deep crimson, Duke Ernst, J. Aymard, Hans Werdmüller, and R. F. Hoheoloh. Silver cup.

An interesting exhibit of tuberous Begonias was made by Messrs. John Peed and Son, West Norwood, S.E. A large square group of beautifully fresh and healthy plants, containing double flowers chiefly, made an attractive display. The plants were well-arranged and the general effect very pleasing. Silver Flora medal.

Messrs. William Cutbush and Son, Highgate, again excelled. In this instance their group occupied the corner of one of the large tents, and was arranged in triangular form. This huge group of flowering and foliage plants was another of the special features of the show, and well merited the gold medal awarded it. Two large conical groups of Carnations, one of border sorts, and the other of the Malmesbury type, occupied prominent positions on either corner, and made an imposing display. Disposed here and there were other smaller conical groups, each containing Carnations and other plants. One of the larger groups contained no less than 300 plants of the lovely yellow Carnation Cecilia. The new border Carnation of rich and bright colour, Herbert J. Cutbush, was well represented. Groups of *Latania* Barnes Bronze and *L. Barnes Yellow* were conspicuous for their effective display. A very handsome group of *Verlana* Miss Willmott also deserves special notice. Among the other good things to be seen in this striking group were colonies of *Erica hybrida* and *E. Cavendishi*, *Kalosanthes coccinea*, and *Calla eliotiana*. At the rear of the group Bamboos and Palms with other foliage plants made a pleasing finish.

In the centre of the first tent Messrs. J. Carter and Co., High Holborn, had a handsome group of well-grown *Gloxinias*, interspersed with *Caladium argyrites*, and edged with *Isolepis gracilis*. The flowers were varied in their markings and colour, and the plants were in first-rate condition. At the rear of the group a capital lot of retarded *Lily of the Valley* assisted to make this a charming display. Silver cup.

From Messrs. Hugh Low and Co., Bush Hill Park, Enfield, a beautiful group of miscellaneous stove and greenhouse plants had much in it to admire, Palms, Pandanus, Crotons, &c., being in charming variety. Anthuriums, Ixoras, and kindred subjects each contributed to make an interesting display.

A superb group, and exceedingly well-arranged, was set up by Messrs. James Veitch and Sons, Limited, Chelsea, S.W. Occupying one end of the centre of the groups in the first tent, ample opportunity was given to make an effective display.

Messrs. Sutton and Sons, Reading, displayed a collection of *Gloxinias* in quite a novel manner. The plants, many of which were bearing a large number of splendid flowers, were prettily arranged as a square mound, Maidenhair Fern making a groundwork, and a Palm surmounting the centre. The exhibit was covered with a large glass case that served effectually to preserve the plants from dust and wind, with the result that the flowers looked quite as fresh at the close of the exhibition as at the opening. Some of the best varieties included Sutton's Reading Scarlet, Duchess of York, Sutton's Giant, Empress, Sutton's Spotted Hybrids, Her Majesty, Violet Queen, and Duke of York, all of distinct and brilliant colouring. Silver-gilt Flora medal.

#### ROSES.

For a group of Roses placed on the ground in a space not exceeding 400 square feet, the first prize, a gold medal and £10 silver cup, was awarded to Mr. Charles Turner, Slough, who had an admirable group, in which the forms of *R. wichuriana* were largely seen. Of these we noted *Auguste Barbier*, pink; *Alberic Barbier*, white; and *R. André*. In addition were such as *Psyche*, *Crimson Rambler*, *Queen Alexandra*, *Aglais*, *Yellow Rambler*, and the *Dawson Rambler*. A group of *Polyantha* kinds also formed a feature.

The gold medal was also awarded to Messrs. Paul and Son, who took second place in this class with a delightful series of Roses. In this lot we noticed hybrid *Briar Una*, *R. sinica* *Anemone*, delicate rose; the new weeping *rugosa alba*, for which there should be many openings, and which alone received a gold medal on the opening day of the conference. Other good things were *Lady Batterssea*, *Leuchstern*, the new *Tea Rambler*, said to be obtained from a seedling *Tea* and *Crimson Rambler*, together with many more all beautiful in their way.

As was naturally expected the Roses were neither so fine nor so numerous as would have been the case with more congenial weather preceding the show. Notwithstanding, there were many good and showy flowers, and most of the classes had competitors for the prizes.

#### AMATEURS.

For twenty-four single blooms, distinct, A. Hill Gray, Esq.,



MESSRS. HUGH LOW AND CO.'S GROUP AT THE HOLLAND PARK SHOW.

Bath, was awarded the silver cup, no other competitor appearing on the scene.

For twelve single blooms the first prize went to the Rev. F. R. Burnside, Rochford, Essex, the only exhibitor.

For six single blooms there were some half dozen entries; the first prize lot coming from T. B. Gabriel, Esq., Woking; the second prize went to R. W. Bowyer, Esq., Hertford.

For six single blooms of any one variety Messrs. F. Cant and Co. took the gold medal for the new *Lady Roberts*.

#### OPEN CLASSES.

For forty-eight blooms, distinct, class 7, there were two competitors, the first prize going to Messrs. F. Cant and Co., Colchester; Messrs. Prior and Sons were second.

For twenty-four single blooms, class 8, Mr. George Prince was first, Messrs. R. Harkness and Co. were second.

#### TEAS AND NOÛSETTES.

For eighteen single blooms, class 9, only one competitor arrived, viz., A. Hill Gray, Esq., Bath, and was placed first. For twelve single blooms, class 10, T. B. Gabriel, Esq., Woking, was first.

For six single blooms, class 17, the second prize was awarded to Mr. R. W. Bowyer.

For six singles of one variety, class 12, A. Hill Gray, Esq., was first, with *Marie Van Houtte*.

For eighteen single blooms, class 13, Mr. G. Prince was first, having *Mme. Cochet*, *Rubens*, *The Bride*, *Amazon*, *Jean Ducher*, &c.; second, Messrs. Prior and Sons.

For thirty-six bunches garden Roses, class 14, Messrs. Frank Cant and Co. came first; Mr. George Cooling, Bath, took second place.

For eighteen bunches, not less than twelve varieties, class 15, Mr. O. G. Orpen, Colchester, was first.

For nine bunches, not less than three trusses of each, *Rugosa* varieties, class 16, Messrs. Cooling, Bath, were first; Messrs. Paul and Sons, Cheshunt, being second.

For nine bunches, *Sweet Briar* hybrids, &c., class 18, Messrs. B. R. Cant and Co. were first.

For twelve bunches, single Roses, class 16, Messrs. B. R. Cant were again first; Mr. George Cooling was second.

For nine bunches, *Chinas* and other hybrids, class 20, Mr. F. Cant was first, with *Irene*, *China*, and *Queen Mab*.

For collection of species, class 22, Messrs. Paul and Son, Cheshunt, were first, having *Rosa hemispherica*, *Alberti*, *luteola*, *ferruginea*, and *multiflora*.

For a bowl or vase of Roses for effect, class 24, O. G. Orpen, Esq., was first; Miss Beatrice Langton was second. There were six competitors.

#### LUNCH TO THE COMMITTEES.

The council of the Royal Horticultural Society have a very sensible annual custom of inviting the various committees to luncheon once a year. An opportunity was taken on the first day of the show for this purpose, and we think the attendance must have been a record one. The chair, in the absence of Sir Trevor Lawrence, Bart., was taken by the treasurer of the society, Mr. J. Gurney Fowler, who referred to the hall and other matters of interest to Fellows. The toast of the committees and the judges was given, and Mr. George Paul responded.

#### THE ROSE CONFERENCE.

This was held in the course of the afternoon, and opened by the Dean of Rochester (Dr. Reynolds Hole), who, in spite of his advanced age, looked in splendid health. Needless to say, the Dean received a hearty welcome. There was a long list of papers to be read, which will be published in the *Journal*. Mr. Baker, F.R.S., described two new Roses from the South-West United States, one *Rosa stellata* and the other the Californian *R. minutifolia*. The Rev. J. H.

Pemberton read an excellent paper, which we hope to publish, on "Hybrid Teas," and this was followed by Mr. Alex. Dickson, of Newtownards, upon the same subject, very interesting and important contributions to the literature of Hybrid Teas. Then Mr. Edward Mawley read a paper on "Sensitiveness of Cultivated Roses to Changes of Weather." Mr. George Mount spoke of "The Cultivation of Roses Under Glass."

A conference, as far as attending it goes, is not a success in summer. It is not always possible to hear what is said, and only a few of the papers promised were read. Without the *Journal* such a conference would become a farce, evidence if it were necessary of the great value of the society's publication.

The sad news of the morning was referred to by the Dean, and a vote of sympathy passed to Her Majesty the Queen. It is needless to say the King's illness cast a gloom over the whole proceedings.

#### NEW PLANTS.

A first-class certificate was granted to:—

*Asparagus myriocladus*, a distinct species, in which the dense growth is of an intense dark green. The pseudo-leaves in this kind form themselves into almost rounded masses or groups, particularly in the first formed, or lower, branches. It is possible there may be some greater elongation in the stronger growths that will lead generally to a lighter and more elegant bearing. Shown by Mr. R. Greenfield, jun., Bath Street, Leamington Spa.

The award of merit was given to:—

*Iris Stanshine*, a flag *Iris*, intermediate in colour between *Heroine* and *Anrea*, the falls being of a pale creamy shade, and the standards yellow. From Mr. G. Yeld, Clifton Cottage, York.

*Rhododendron Lady Clementine Walsh*.—A delightful *Rhododendron* with fine trusses of flowers of a soft rose-pink and white. The variety is very free flowering. Shown by Messrs. John Waterer and Sons, Bagshot.

*Iris orientalis Snow Queen*.—This is the first white-flowered *Iris* of this section, and as such promises with all the freedom and grace of the species to become a good garden plant. Quite an acquisition. Shown by Messrs. Barr and Sons, Covent Garden, W.C.

*Begonia Masterpiece*, a magnificent crimson self and double *Begonia*. The flowers are of great size, and the petals well proportioned.

*Begonia Miss Dorothy Hardwick*, a very beautiful flower of soft or delicate pink hue. The handsome proportions of the flowers are quite a feature.

*Begonia Professor Lanciana*, a fine orange salmon kind. Very double and full, and excellent in every way. This fine trio of double *Begonias* was shown by Messrs. Blackmore and Langdon, Bath.

*Sparaxis Fire King*.—A better name for this kind would perhaps be *S. tricolor*, for the brilliant blossoms are crimson, black, and gold, a veritable trio of colours, and a remarkable combination in any one plant. Two fine pans of it were well shown by Messrs. Wallace and Co., Colchester.

#### NATIONAL ROSE SOCIETY.

OPENED BY THE DEAN OF ROCHESTER.

This great metropolitan exhibition of the society was held on Wednesday last in the Inner Temple Gardens. The day was pleasantly cool, the flowers remained fresh until the evening, and the effect in the tents of the garden Roses (which were very beautiful) was charming. The Dean of Rochester opened the show, and in doing so said forty-four years had elapsed since he opened the first Rose show, and remarked how great had been the development of the Rose, and the great work that had been accomplished by the



National Rose Society. The Dean was not forgetful of the grand work accomplished by the Rev. H. Dombain and Mr. E. Mawley.

As we have mentioned elsewhere the exhibition was not so fine as it would have been in a more favourable season, but it was a surprisingly fresh and interesting display. Exhibits that secured a third or even second prize would in a great Rose year have been passed by.

The garden Roses were superb, Messrs. Paul and Sons contributing delightful exhibits. The champion trophy was won by Messrs. Frank Cant, Braiksway Nursery, Colchester, with remarkably fresh flowers, and this exhibit contained the silver medal Hybrid Tea, a bloom of Mildred Grant, with wonderful petals and tender coloring, and the silver medal B. P. Rose, which was Mrs. John Laing.

Mr. O. G. Orpen, West Bergholt, was a successful amateur. His champion trophy Roses contained the three medal blooms. The best Tea was Maman Cochet, Hybrid Tea Bessie Brown, and Hybrid Perpetual Mrs. John Laing.

Mr. George Prince's exhibition Roses in vases suggest possibilities in the future. It was a beautiful exhibit, especially the flowers of Comtesse de Nadailac. Boxes seemed dreary after these exhibits in vases.

Mrs. H. E. Molyneux's first prize vase (Munstead glass) of the Killarney Rose was quite a feature of the show.

Of new Roses unquestionably the most beautiful was Messrs. Frank Cant and Co.'s Lady Roberts, which has been described on a previous occasion; Souv. de Pierre Notting was also a lovely variety, orange, yellow, and soft rose, from Mr. George Prince.

#### NON-COMPETITIVE EXHIBITS.

Messrs. W. Spooner and Co., Arthur's Bridge Nursery, Woking, showed a very pretty lot of cut Roses, arranged in Bamboo stands and in boxes. The flowers were fresh and of excellent form, though not large. Some of the best of the bunches were Fisher Holmes, Francisca Kruger, Marie Van Houtte, The Bride, and Mrs. W. J. Grant; and in the boxes Kaiserin Augusta Victoria, White Maman Cochet, and others were good.

Messrs. George Jackman and Son, Woking Nursery, Surrey, exhibited a very bright bank of cut Roses, as well as a number of blooms in boxes. Those in vases were closely bunched, Gypsophila being placed between them, and they included such lovely things as Amy Robarts, L'Idéal, Mme. ralcot, Ma Capucine, Euphrosyne, Penzance Briars, Carmine Pillar, Eugénie Lamesch, &c. There were good blooms of La France, Mrs. W. J. Grant, François Michelin, Maman Cochet, &c., in the boxes.

Messrs. George Bunyard and Co., Maidstone, displayed a group of bunched Roses in vases and boxes. Included were some very pretty Polyantha varieties, Paquerette, Gloire des Polyanthas, Aglaia, Mignonette, &c. The singles comprised Amy Robarts, Meg Merrilies, Leuchster, Macrantha, and Andersonii, and there were numerous other well-known varieties represented.

Messrs. James Veitch and Sons, Limited, Chelsea, showed large bunches of their Rose Queen Alexandras, a very free-flowering variety, the result of a cross between Rosa multiflora simplex and Crimson Rambler. Their beautiful Rose Electra was also well shown.

Messrs. Laxton Brothers, Strawberry specialists, Bedford, exhibited a display of fruits of their new Strawberry, The Laxton (Royal Sovereign x Sir J. Paxton). This Strawberry is of good size, square conical, and of a bright red colour.

The original plant of the Farquhar Rose (the result of a series of crosses between Rosa wichuriana and the Crimson Rambler, made by Mr. Jackson Dawson), was shown by Messrs. R. and J. Farquhar and Co., South Market Street, Boston, Mass., U.S.A. The double flowers are of a lovely pink colour, and are borne in dense clusters.

#### OPEN CLASSES.

##### DECORATIVE ROSES.

For nine distinct varieties of Roses suitable for button-holes the first prize was awarded to Mr. John Mattock, New Headington, Oxford, for a charming lot; Mr. Alfred Evans, Marston, Oxford, was second with less refined flowers; and Mr. George Mount, Canterbury, was third.

For twelve distinct varieties of single-flowered Roses Mr. George Prince, Longworth, Berks, won the first prize with an exhibit that included some charming bunches of flowers in many beautiful colours; Messrs. George Cooling and Sons, Bath, were second with hardly so good a selection; and Messrs. Paul and Son, Cheshunt, were third.

In the class for designs or devices to illustrate the decorative value of the Rose (nurserymen and florists) the second prize was given to Messrs. Paul and Son, Cheshunt, whose flowers were arranged in vases of varying sizes, making a pretty though somewhat crowded table; Mr. Geo. Mount, Canterbury, won the third prize with some splendid blooms, though not effectively arranged.

#### AMATEURS.

##### AMATEUR CHAMPION CLASS.

In the class for thirty-six blooms, distinct varieties, E. B. Lindsell, Esq., Bearton, Hitchin, was placed first with a very bright lot of good flowers, of which the best were Ulrich Brunner, S. M. Rodocanachi, Golden Gate, White Lady, Catherine Mermet, and Lady Mary Fitzwilliam; Omond G. Orpen, Esq., West Bergholt, Colchester, was second, his blooms of the pink shades being very fine, notably Mrs. John Laing, La France, Mrs. W. J. Grant, Marchioness of Downshire, &c. No less than three silver medals were awarded to blooms in this exhibit as being the best in their respective classes. The third prize was given to the Rev. J. H. Pemberton, Havering-atte-Bower, Essex.

For twenty-four blooms, distinct varieties, R. E. Dean, Esq., Firth Dene, Wray Park, Reigate, was first with well-formed flowers, some of the best being La France, La France No. 2, Marquise Litta, and Captain Hayward; Alfred Tate, Esq., Downside, Leatherhead, was second, the best flowers being Captain Hayward (very fine), Bessie Brown, and Maman Cochet.

For a similar exhibit, open to all amateurs (the previous

class is conditional), Omond G. Orpen, Esq., West Bergholt, Colchester, won the first prize with small, though well-formed blooms, of which Souv. de S. A. Prince, Catherine Mermet, and Mrs. John Laing were splendid. Rev. J. H. Pemberton was second, included being some good blooms of Bessie Brown, Mrs. W. J. Grant, Comtesse de Nadailac, and La France.

For twelve distinct varieties, three blooms of each, E. B. Lindsell, Esq., was first, and the only exhibitor. Mrs. Hayward, Woodchatch Lodge, Reigate, was first for twelve blooms of any Rose, except Tea or Noisette, with good examples of Mrs. S. Crawford; Rev. J. H. Pemberton was second, showing Bessie Brown.

#### Open only to growers of less than 2,000 plants.

For twenty-four blooms, distinct, E. M. Bethune, Esq., Denne Park, Hotham, was first, with an excellent lot that comprised Mrs. Sharmar Crawford, M. S. Rodocanachi, Caroline Testout, Duke of Teck, and White Maman Cochet. F. Wellesley, Esq., Westfield, Woking, was second, Maman Cochet, Muriel Grahame, and Cleopatra being perhaps the best; W. Colin Romaine, Esq., Old Windsor, won the third prize.

For eight distinct varieties, three blooms of each, Edward Mawley, Esq., Berkhamsted, was first, showing some splendid blooms of Mrs. W. J. Grant, La France, and Mrs. E. Mawley; E. M. Bethune, Esq., was second; and R. E. West, Esq., Reigate, third.

The first prize for nine blooms of any Rose, except Tea or Noisette, was won by E. M. Bethune, Esq., with Mrs. Sharmar Crawford; W. C. Romaine, Esq., Old Windsor, was second, showing Crown Prince; and R. E. West, Esq., Reigate, third, with La France.

#### Open only to growers of less than 1,000 plants.

F. R. Curtis, Esq., Wokingford, Colchester, won the first prize for twelve blooms, distinct varieties, with splendid flowers of Mme. Jules Grolez, La France, Marquise Litta, S. A. Prince, &c.; Thomas B. Gabriel, Esq., Elmstead, Woking, was second with smaller flowers, Mrs. Edward Mawley, Mrs. John Laing, and Caroline Testout being of the best; G. W. Cook, Esq., Wood Glen, Muswell Hill, was third.

Thomas B. Gabriel, Esq., won the first prize for six blooms of any Rose, except Tea or Noisette, with good flowers of La France; G. W. Cook, Esq., was second, showing Bessie Brown; and Rev. R. Powley, Upton Scudsmore, Warminster, was third, with Kaiserin Augusta Victoria.

#### Open to growers of less than 500 plants.

R. W. Bowyer, Esq., Hertford, won for nine blooms, distinct varieties, with beautiful specimens; Mrs. L. E. Times, Bedford Road, Hitchin, being a good second; and G. A. Hammond, Esq., third. There were numerous other entries.

For six blooms, distinct, Charles K. Douglas, Esq., Rathmolyon, County Meath, won the first prize with excellent flowers of Bessie Brown, White Maman Cochet, &c.; R. Boswell, Esq., Hitchin, was second; and Ernest R. Smith, Esq., Melford Lodge, Muswell Hill, third.

For six blooms of any Rose, except Tea or Noisette, G. A. Hammond, Esq., Cambrian House, Burgess Hill, was first with very good blooms of Bessie Brown; R. W. Bowyer, Esq., was second with Marquise Litta; and Charles K. Douglas, Esq., third with Bessie Brown, all showing well.

In the division open only to growers of less than 200 plants, Charles Lamplough, Chatteris, Cambs., was first with good blooms in the class for six blooms, distinct; Havard Williams, Esq., North Finchley, second; and Herbert E. Molyneux, Esq., Brantwood, Balham, third. There were several other entries.

In an extra class for twelve blooms, distinct, G. A. Hammond, Esq., won the first prize with an excellent lot, the best being Killarney, Mrs. E. Mawley, Caroline Testout, and La France; Mr. George Moules, Hitchin, was second; and Harcourt P. Landon, Esq., Brentwood, third.

For four distinct varieties, three blooms of each, Rev. F. Page Roberts, Halstead Rectory, Sevenoaks, was first, Antoine Rivroir and S. de S. A. Prince being the best; Ernest Wilkins, Esq., Rosedale, Sidcup, was a good second; and Rev. R. Powley, Warminster, a close third. The other entries were quite numerous.

#### EXTRA CLASSES FOR AMATEURS.

The first prize for twelve blooms, distinct, was won by A. Hill Gray, Esq., Newbridge, Bath, with some lovely flowers, Golden Gate, Souv. d'Elise Vardon, Maman Cochet, Medea, and others were excellent; Rev. J. H. Pemberton was second, showing some good flowers also, notably Comtesse de Nadailac, John Laing, and Bessie Brown; E. M. Bethune, Esq., was third, and also showed good blooms. This class was well contested.

For six blooms, distinct, Charles K. Douglas, Esq., Rathmolyon, was first with very good specimens of Earl of Dufferin, Catherine Mermet, Ulrich Brunner, &c.; Claude Magnia, Esq., Esler, was second with Mrs. Edward Mawley and Marquise Litta splendid; Lewis S. Pawle, Esq., Rowsham, Harrow, was third.

Joseph Wakeley, Esq., Moor Street House, Rainham, was first for six blooms in not less than four varieties, with some well-formed examples; Miss Lillyett, The Copse, Reigate, was a good second; and Mrs. Du Buisson, West Clandon, Guildford, was third.

#### NURSEYMEN.

The champion trophy class of seventy-two distinct varieties brought five competitors into the field, and the coveted award, after great consideration on the part of the judges, fell to Messrs. F. Cant and Co., Colchester, who staged a remarkably fine display for the season. The most noticeable flowers were Mrs. J. Laing (grand), Lady Mary Fitzwilliam, Dr. Audrey, Margaret Dickson, Maréchal Niel, Rev. Allan Cheales, Papa Lambert, Mrs. F. Cant, Mme. de Watteville, Ulster, White Lady, Mildred Grant, Victor Hugo, Ulrich Brunner, S. M. Rodocanachi, Souvenir de S. A. Prince, Comte de Paris, Bridesmaid, and Caroline Testout. Messrs. B. R. Cant and Sons, Colchester, were placed second with a beautifully bright and fresh

display, though taken as a whole they were somewhat weaker than the prize-winning blooms. The best varieties noted were Papa Lambert, Mrs. W. J. Grant, Ulrich Brunner, Cleopatra, Ulster, Fisher Holmes, Duchesse de Monroy, Mildred Grant, Golden Gate, Dupuy Jsmain, Mrs. Cocker, Medea, and Marquise Litta. Messrs. D. Prior and Son, Colchester, were third.

For forty varieties, three blooms each, distinct, in keen competition Messrs. Alex. Dickson and Sons, Limited, Newtownards, came out first. The best varieties were Bessie Brown, Comtesse de Nadailac, Duchess of Portland, La France, Lady Ashtoo, Medea, Horace Vernet, White Lady, Mildred Grant, Countess of Caledon, Ulster, Mrs. W. J. Grant, Mrs. E. Mawley, Lady Clanmorris, Alice Lindsell, and Lady Mary Fitzwilliam. The second position fell to Messrs. B. R. Cant and Sons, Colchester. Amongst the best varieties were Helen Keller, Mrs. Sharmar Crawford, Cleopatra, Caroline Testout, Ulrich Brunner, Mrs. J. Laing, Rev. Allan Cheales, Medea, Mrs. W. J. Grant, and Kaiserin Augusta Victoria; while Messrs. F. Cant and Co., Colchester, were third. There were three competitors.

For forty-eight blooms, distinct, there were five competitors. Unfortunately, Mr. Geo. Prince sustained disqualification. The first prize was ultimately awarded to Mr. Hugh Dickson, Belfast, for an excellent exhibit. His best varieties were Rev. Allan Cheales, Mme. Jules Grolez, Caroline Testout, White Lady, Mrs. W. J. Grant, Marchioness of Downshire, Captain Hayward, Mme. Hoste, Jeannie Dickson, and Ulster. Messrs. J. Burrell and Co., Howe House Nurseries, Cambridge, were placed second for a good level display, the most conspicuous kinds being Gladys Harkness, Souvenir d'un Ami, Marie Baumann, Killarney, Maman Cochet, and Marquise Litta. Messrs. R. Harkness and Co., Hitchin, were third.

For twenty-four blooms, distinct, there were five entries, and Mr. J. Mattock, New Headington, Oxford, secured the first prize, the best blooms being White Maman Cochet, Captain Hayward, Catherine Mermet, Muriel Grahame, Medea, and Caroline Testout. Mr. Geo. Mount, Canterbury, was second with typical blooms of Caroline Testout, Mrs. Sharmar Crawford, Mrs. W. J. Grant, General Jacqueminot, and Cléo. The third position was awarded Mr. Chas. Turner, Slough.

For twenty-four trebles there were three competitors, and Mr. Geo. Mount, Canterbury, proved the victor with a good level exhibit, the best varieties being Mrs. Sharmar Crawford, Bessie Brown, Anna Olivier, Cléo, Mrs. J. Laing, Prince Arthur, Ulrich Brunner, and Chas. Lefebvre. Mr. Geo. Prince was second with a weaker exhibition, his best varieties being Caroline Testout, General Jacqueminot, Catherine Mermet, Captain Hayward, Mrs. E. Mawley, and Bridesmaid, and Mr. John Mattock, New Headington, was third with typical trusses of Mrs. Edward Mawley, White Maman Cochet, and Muriel Grahame.

For twenty-four Teas and Noisettes, distinct, there were three competitors, but Mr. Geo. Prince had the misfortune to be disqualified after securing a clear win, for staging two blooms of Souvenir d'Elise Vardon. The stand contained grand blooms of Comtesse de Nadailac, Mme. de Watteville, Maman Cochet, Souvenir de S. A. Prince, Souvenir d'un Ami, and Princess of Wales, the first prize being awarded to Messrs. F. Cant and Co., whose best blooms were Etoile de Lyon, The Bride, Lady Roberts, Cleopatra, Caroline Kuster, and Bridesmaid. Messrs. D. Prior and Son, Colchester, were second, having good blooms of Maréchal Niel, Souvenir de S. A. Prince, Catherine Mermet, and Souvenir d'un Ami.

For twelve blooms, distinct, there were only three entries, and Messrs. J. Burrell and Co., Howe House Nurseries, Cambridge, secured the premier award. The most prominent varieties were White Maman Cochet, Ernest Metz, Comtesse de Nadailac, Cleopatra, The Bride, Bridesmaid, and Maman Cochet; Mr. J. Mattock, Oxford, followed, with good flowers of white Maman Cochet, Mrs. E. Mawley, Cleopatra, Souvenir d'Elise Vardon, The Bride, and Muriel Grahame.

The class for sixteen trebles only produced two entries, but both were good. Mr. George Prince gained the first prize with a good level board, the most notable varieties being Souvenir d'un Ami, Medea, Bridesmaid, Maman Cochet, The Bride, Cleopatra, Comtesse de Nadailac, Mrs. Edward Mawley, Catherine Mermet, and Souvenir de S. A. Prince, the second prize falling to Messrs. D. Prior and Son, Colchester, who had typical blooms of The Bride, Maréchal Niel, Rubens, Caroline Kuster, and Souvenir de S. A. Prince.

The vase classes not only appeared popular with the exhibitors, but equally so with the general public, and in the class for twelve varieties of seven blooms each there were six entries. Mr. George Prince being placed in the front rank with a glorious exhibit; the best varieties were The Bride, Comtesse de Nadailac, Medea, Prince Arthur, Jeannie Dickson, Maman Cochet, and Marquise Litta; Mr. George Mount was placed second, his most conspicuous varieties being Catherine Mermet, Mrs. J. Laing, and Caroline Testout; while Mr. Charles Turner was third with a well-displayed exhibit.

For a similar class of nine varieties of Teas and Noisettes in a stipulated space there were three entries, and Mr. Geo. Prince was again in the front rank with a truly beautiful exhibit, good vases of Comtesse de Nadailac, The Bride, Marie Van Houtte, Maman Cochet, Medea, Bridesmaid, and Souvenir de S. A. Prince were in evidence; Mr. J. Mattock being second with good vases of Princess of Wales, Medea, White Maman Cochet, Muriel Grahame, and Bridesmaid; Mr. G. Mount being third.

There were four competitors in the class for Garden or Decorative Roses, represented by thirty-six distinct varieties, and although one would expect to find more competitors in this class, no fault could be found with the quality of the exhibits. The first prize was awarded to Messrs. F. Cant and Co., who arranged some fine bunches of Aglaia, Claire Jacquier, Hebe's Lip, Gustave Regis, Mignonette, Rainbow, and Camoëns; Messrs. G. Cooling and Sons, Bath, were second with good examples of Dr. Rogers, Papa Gontier, Princesse de Monaco, Shirley Hibberd, Irene Watts, and Mme. Pernet Ducher; Mr. J. Mattock was third.







# THE GARDEN

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[JULY 12, 1902

## A NEW WAY OF SHOWING EXHIBITION ROSES.

**A**N exhibition of surprising beauty and general excellence, although many a winning stand of flowers would have taken a different place in a better Rose exhibition year, filled the tents in the Inner Temple Gardens, kindly lent by the Benchers for the day to the National Rose Society. Exhibitions vary little from year to year as far as outward appearances go, but on this occasion one class in particular gained the approval, not merely of the general public, but of the ardent exhibitor, who we have been led to believe steadfastly pursues the same path as his forefathers, and regards any divergence from set rules as a sin against all that the "florist" has held most precious since the days when Rose exhibitions added a new joy to the pleasures of English gardening.

The class we mean was that for twelve varieties of seven blooms each to be shown in vases. There were six entries, and the display formed quite a feature of the show, the winning flowers of Mr. George Prince showing how beautiful the Rose is when so arranged that the delicate shading on the petals and natural pose of the flower are as perfect as on the bush in the garden. All this natural beauty is lost when the flowers are set out with mathematical regularity on a green painted box.

We regard the Rose exhibition as possessing an immense influence for good in furthering a wholesome desire to produce individual flowers of a high degree of excellence, but there is no reason why the National Rose Society, which may be regarded as a leader in such matters, should not develop the vase class now that such a welcome innovation has charmed not merely the visitor but the keen exhibitor, who lingered over the superb flowers in vases and declared that exhibition Rosesshown in this way were more pleasurable than those in the boxes.

The complexion of the English garden is changing for the better, and the maker of show schedules, who is not forgetful of the change, is wise.

## THE HORTICULTURAL HALL APPEAL.

THE following letter has been addressed by Sir Trevor Lawrence, M.P., President of the Royal Horticultural Society, to every Fellow of the Society, and it remains for those who wish for the hall and offices to add their names to the subjoined list. We hope the requisite

sum will be quickly obtained without touching the reserve fund of the society.

"At a special general meeting of the Royal Horticultural Society, held on March 21, and largely attended, it was resolved to adopt a proposal to build, on a site facing Vincent Square, Westminster, a horticultural hall and offices in commemoration of the centenary of the society in 1904.

"The Society has no home—a want of such national importance that, as long ago as 1890, His Majesty the King addressed to the Society the following words: 'I sincerely hope that your labours to obtain a hall may be successful, for I feel sure that it would be of the greatest use and advantage.' Since 1890 the necessity for increased and better accommodation has become more and more obvious. The Drill Hall is badly lighted, and it is frequently impossible to find room for the plants sent, while the valuable work of the committees is carried on under great difficulties and constant interruption. During the afternoon the hall is often so crowded that circulation becomes impossible and so noisy that the lecture is inaudible. The limited office accommodation, which cannot be increased here, is a serious impediment to the proper discharge of secretarial and other work.

"The present position of the society fully justifies the adoption of the proposal. It has now 6,000 Fellows on its roll, and large numbers are continually joining it. The financial position is satisfactory. But even more important is the high credit enjoyed by the society among horticulturists of every class. At home or abroad it is the recognised head of British horticulture, and many of the most distinguished scientific and practical horticulturists in the kingdom serve on its committees and contribute to its Journal.

"The proposed buildings will involve, it is believed, an expenditure of from £25,000 to £30,000, towards which unsolicited promises have been made already of nearly £10,000.

"May I add your name to the letter to be circulated among the Fellows as approving of the proposed hall and offices.

"TREVOR LAWRENCE, *President.*"

The following subscriptions have been received before the issue of any appeal:—

	£	s.	d.		£	s.	d.
Herbert J. Adams	10	10	0	H. J. Elwes			
W. C. Alexander	10	0	0	F.R.S., V.M.H.	1,000	0	0
W. Bateson, M.A.				Sir Wm. Farrar	50	0	0
V.M.H.	2	2	0	J. Gurney Fowler	500	0	0
F. A. Bevan	105	0	0	Rt. Hon. R. W.			
P. Birkett	1	1	0	Hanbury, M.P.	5	0	0
Sir James Blyth	10	10	0	Captain Holford			
Dr. Bonavia	5	0	0	C.I.E., M.V.O.	500	0	0
Colville Browne	1	1	0	J. Hudson, V.M.H.	10	0	0
Geo. Bunyard and				Earl of Ilchester	300	0	0
Son, Limited	52	10	0	Sir T. Lawrence			
George Burt	10	10	0	Bart., V.M.H.	500	0	0
Walter Cobb	21	0	0	Lord Langatock	50	0	0
Jeremiah Colman	250	0	0	Lord Lindley	21	0	0
Walter Cunliffe	10	10	0	Arthur Lloyd	105	0	0
C. Czarnikow	100	0	0	F. G. Lloyd, High			
Mrs. C. Davies	2	2	0	Sheriff of Bucks	105	0	0
Alexander Dean	5	0	0	Sir E. Loder, Bt.	100	0	0
Abraham Dixon	52	10	0	Stuart H. Low	26	5	0
Dobbie and Co.	25	0	0	E. V. Low	26	5	0
J. Douglas, V.M.H.	21	0	0	C. J. Lucas	100	0	0

	£	s.	d.		£	s.	d.
H. B. May	52	10	0	Martin R. Smith			
George Monro				V.M.H.	105	0	0
V.M.H.	52	10	0	Leopold Salomons	52	10	0
Pierpont Morgan	1,000	0	0	Mrs. Stern	5	5	0
C. G. A. Nix	21	0	0	Arthur Sutton			
Paul and Son	50	0	0	F.L.S., V.M.H.	1,000	0	0
F. C. Pawle	25	0	0	James Sweet	52	10	0
Pantia Ralli	50	0	0	Lady Tennant	25	0	0
G. C. Raphael	200	0	0	Wm. Thompson	10	10	0
Reamsbottom				Lady Trevelyan	2	0	0
and Co.	1	1	0	Harry J. Veitch			
Lord Rothschild	1,000	0	0	F.L.S.	105	0	0
Miss A. de Roth-				Mrs. H. J. Veitch	52	10	0
Schild	150	0	0	Messrs. Jas. Veitch			
F. Sander	52	10	0	and Sons, Ltd.	250	0	0
Baron Schröder	5,000	0	0	R. Veitch and Son	10	10	0
N. N. Sherwood				Walter C. Walker	25	0	0
V.M.H.	1,000	0	0	Arthur L. Wigan	21	0	0
Rev. W. Wilks, M.A.	25	0	0				

## EDITOR'S TABLE.

### ARMERIA ALBA SUPERBA.

Dr. Mules sends us a few flowers of this handsome white Thrift. The stalks are fully 14 inches high, and the flower heads surmounting them are large and pure white.

### CARNATIONS FROM DAWLISH.

Mr. Weguelin sends from his nursery at Dawlish three superb varieties. One is named Mrs. Weguelin: it is a tree variety, with very large, but not coarse flowers, broad in the petal, soft apricot-buff, and sweetly scented. It has one great virtue, the calyx does not split; the colour is quite distinct and very charming. Mr. Weguelin also sends a flower of the parent, Duchess Consuelo, a beautiful pure yellow, with broad, firm petals. Another novelty from Mr. Weguelin is Pretoria; the flower is of immense size, and the broad petals have cut edges, whilst the colour is a self bright crimson.

### FLOWERS FROM REDRUTH.

A delightful boxful of flowers comes from Messrs. V. N. Gauntlett and Co., of Redruth. The following Mock Oranges or Philadelphuses were very beautiful:—

### PHILADELPHUS MANTEAU D'HERMINE.

This is one of the most beautiful hybrids we have seen. It is of quite erect growth, and the stems are lined with pure white semi-double flowers, faintly fragrant, and produced so freely that the shoot is simply a mass of bloom. A bed of it must be very beautiful. The other Philadelphus sent by Messrs. Gauntlett is named Monster. This is not a pretty name, but given, we presume, because of the large size of the flowers, which were larger than those of *P. grandiflorus*, very richly scented, and inclined to quite a cup-like shape, whilst they are creamy white. These hybrid Philadelphuses are amongst the most welcome of all flowering shrubs, the two named in particular.

### BUDDLEIA VARIABILIS.

This is one of the most interesting shrubs sent. It is very beautiful with its graceful arching flower clustered shoot and lilac colouring. It is not a shrub for every garden, but where the soil is warm and the position not too exposed it is quite happy.

### SOLANUM CRISPUM.

Several flowering shoots were sent of this Chilean



shrub, the Potato Tree of Chili. It is a plant for southern gardens rather than those in the midland and north, but where it cannot be trusted in the open ground it is sufficiently interesting to plant against a wall. It will grow to a height of 16 feet, and has clusters of purplish flowers, with conspicuous bright yellow stamens.

#### ESCALLONIA EXONIENSIS.

This is a pretty shrub. It has a wealth of fresh green leaves, and clusters of white pink tinted flowers, which simply smothered the whole plant. Besides these Messrs. Gauntlett sent that excellent *Olearia* (*O. macrodonta*), *Colutea melanocalyx*, and *Deutzia crenata* fl.-pl.

#### LEMOINE'S PHILADELPHUSES FROM DUBLIN.

Mr. Greenwood Pim sends from Easton Lodge, Monkstown, County Dublin, sprays of some of Lemoine's dwarf Philadelphuses, with this note: "I enclose a few sprays of Lemoine's dwarf Philadelphuses, which I think are most desirable shrubs for a small garden. They do not grow more than 3 feet or 4 feet high, and flower abundantly in July; in fact, some flowering sprays of one variety are on the ground, and they are clothed to the top. I fear the double one (*Boule d'Argent*) is too far gone, but I have been waiting to send you, if possible, all the forms I had, including *P. microphyllus*, which I take to be the parent of most of them. I had them two or three years ago from Newry, but I imagine they are to be had in most good nurseries. They are in a sheltered border, but they seem absolutely hardy."

[A very interesting collection of flowering sprays of some of the most beautiful of the dwarf Philadelphuses or Mock Oranges. *Boule d'Argent* is very double, and one of the best of the whole series. As Mr. Greenwood Pim well says, they are "most desirable shrubs for a small garden."]

#### SWEET PEAS FROM LINCOLNSHIRE.

Messrs. Gilbert and Son, Anemone Nurseries, Dyke Bourne, Lincolnshire, send a delightful series of Sweet Peas, very finely grown, and good in all ways. The selection was a most interesting one, as the following list will show: Lottie Hutchins, Queen Victoria, Fire King, a new and welcome variety, of a very striking scarlet shade; Gorgeons, coral-pink, which we consider one of the most beautiful of all Sweet Peas; Prima Donna, pale pink; America, Venus, quite a soft pink shade; Prince of Wales, Hon. F. Bouverie, Modesty, Royal Rose, Chancellor, Navy Blue, Duke of Westminster, a very beautiful violet shade; Othello, the lovely mauve-coloured Lady Grisell Hamilton, Black Knight, Sadie Burpee, and Modesty, white, one spray having six exceptionally large flowers.

Messrs. Veitch and Sons send us from their nursery at Coombe Wood, Kingston-on-Hill, flowering shoots of the following shrubs:—

**AZALEA VISCOSA.**—The deliciously sweet scent of this Azalea is very welcome, and the shrub is a good one for English gardens. The deep green leaves show off the whiteness of the flower clusters.

**VIBURNUM DILATATUM** and **V. MACROCEPHALUM.**—Very handsome with their white flower heads.

**WEIGELA HORTENSIS NIVEA** and **W. EVA RATHKE.**—The former is the best of the white, while the latter is intense crimson, a deep and telling colour. Weigelas are amongst the most useful of shrubs; they are vigorous, last long in bloom, and are happy even in quite the suburbs of large towns.

**LONICERA SEMPERVIRENS.**—Messrs. Veitch send a very good form; it is a Honeysuckle to establish in the garden, for its brightness and pretty tubular flower shape.

**PHILADELPHUSES.**—*P. coronarius erectus* is a good variety, the shoots erect and crowded with pure white flowers. *P. Mont Blanc* also sent is another good form.

**VERONICA NUTKANUS.**—This has pretty white flower clusters.

**CORNUS KOUSA.**—This was one of the most

interesting shrubs sent. It is described by Professor Sargent as an uncommon species, but not confined to Japan, as it occurs also in Central China. It is a native of the mountainous parts, and is, consequently, much harder than some other Japanese trees, and certainly harder and more suitable to our English climate than the beautiful Virginian Dogwood *Cornus florida*, with which *C. Kousa* is best compared. The flowers, or rather the involucre scales, are creamy white, and are produced in May and June, and last a long time on the tree. In Japan it grows into a bushy flat-topped tree, 18 feet to 20 feet high, with wide spreading branches.

**CÆSALPINIA JAPONICA.**—We were glad to be reminded of the beauty of this yellow-flowered Japanese tree.

**HEDYSARUM MULTIJUGUM.**—A Chinese shrub, very beautiful, with its greyish leaves and purple-rose flowers.

**MAGNOLIA THOMPSONIANA.**—A variety of *M. glauca*. Its fragrant ivory-white flower and greyish underside of the leaves are very charming. Both flower and leaf are larger than the type.

**ESCALLONIA LANGLEYENSIS.**—A hybrid raised by Messrs. Veitch at Langley, between *E. macrantha* and *E. philippiana*; it flowers with great freedom, and its rose-colouring is very bright.

Amongst other shrubs sent were the yellow cut-leaved Elder (*Sambucus racemosa serratifolia folius anreis*), *Ptelea tripoliata aurea*, with foliage of a good yellow colour; the useful *Cytisus nigricans*, the Rose Acacia (*Robinia hispida*), *Kalmia glauca*, and a very sweetly-scented double rose-coloured Peony named *Artemise*.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

July 15.—National Sweet Pea Society's Show, Royal Aquarium (two days).

July 17.—Halifax and Helensburgh Rose Shows; Maidenhead Horticultural Show.

July 19.—National Rose Society's Northern Show, Manchester.

July 22.—Royal Horticultural Society's Committees meet; National Carnation and Picotee Show, Drill Hall, Westminster; Tibshelf Rose Show.

July 23.—Cardiff Horticultural and Rose Show (two days); Newcastle Horticultural Show (three days).

July 24.—Summer Excursion of the Horticultural Club.

July 30.—Chesterfield Flower Show.

August 4.—Grantham and District Horticultural Show.

August 5.—Royal Horticultural Society's Committees meet, Drill Hall, Westminster; Leicester Horticultural Show (two days).

August 9.—Crewe Horticultural Exhibition.

**Exhibits at the Temple Rose Show.**—There were several complaints at the recent Rose show because of the impossibility of making one's way round certain of the exhibits. Although these were arranged with a view to their being equally good on every side, ropes prevented visitors getting near them, and consequently many of the best blooms were not seen.

**Genista virgata.**—This pretty upright-growing Broom is beginning to flower (July 1). It is rather long in coming into flower after being transplanted, I understand, and my plant has been here for several years without showing a flower until now. It is, however, one of the shrubs which one could admire even if it never produced a flower, as its elegant silky foliage is appreciated by all who admire the quieter colouring of leafage as well as of flower. The growth is very elegant, and the Broom looks very pleasing all through the summer even without a blossom. Yet one is pleased to see that it has at length reached a flowering stage, and to observe that it is going to give one so many of its pretty yellow flowers, small as these are compared with those of our native Broom. If, as I anticipate, it will always

bloom at this time, it will be welcome as coming in before *Cytisus nigricans*, a Broom far too little known. It is a native of Madeira, and when established will grow to 6 feet high. My bush is about 4 feet in height. It is hardy in warm positions, and I grow it on the top of a sunny rockery protected from the north winds by a low wall and a trellis on top. It has not suffered in the least from the winters of the past four or five years. *Genista virgata*, which is sometimes sold as *Cytisus virgatus*, is a desirable plant for the rock garden, border, or sheltered shrubbery.—S. ARNOTT.

### Notes from a Devon garden.

Really South Devon seems the only place to live in, to judge by the woeful reports from all over the Kingdom. It is possible you may remember my reporting the seeding of two Bamboos, *Arundinaria Simoni variegata*, last year. Both plants are again flowering. Is not this rather unusual? The plants are young, only 5 feet high, but they have thrown up their new canes 6 feet high, and the foliage is bright and the variegation very good. The flowering has not in any way diminished their vigour. We have just sown last year's seed. *Hamamelis zuccariniana* does not want to be the only thing not flowering in the Japanese garden. It is perfectly covered with flower buds, though it bloomed most freely in February. I wonder if they will open or wait till next year? A rather singular case of "suspended animation" has occurred in its neighbour *Daphne Gwenka*. This was planted in September, 1900, but has not shown the slightest sign of life until ten days ago, when it rapidly broke into leaf. Not far away, in the same garden, *Melia japonica* is in flower bud. I fancy that this is not a commonly grown shrub, for it is more shrub than tree. *Romneya Coulteri* must find something in our soil that it likes, for it seems quite at home. A rather large one was moved this April. Last year's shoots were nearly 8 feet high, and, as usual, these were cut down to about 3 feet after flowering. The result is that every old shoot has a lot of laterals with flower buds; there are thirty-two showing now, yet the shrub is only 4 feet high, instead of nearly 8 feet, a great improvement I think. A beautiful tree in the Japanese Garden is *Rosa wichuriana* Jersey Beauty, budded, or rather grafted, upon a 6 foot stock. The "head" is already weeping, and the effect of the long shoots of polished green, with the dainty cream flowers and yellow buds, is charming. I am going to have more of these tall weeping Roses on the lawn. A lovely little weeping tree near it is *Pyrus Toringo*; although beautiful in flower, it is perhaps at its best in the autumn, when the small leaves are various shades of red, gold, and russet, and the tiny Apples, each on a fairly long stalk, a golden shower. The fruit is about the size of Sweet Peas. Perhaps my good luck in rooting a broken-out graft, some 18 inches high, of a single Japanese Tree Peony may be a help to some one else, who like myself finds that the rootstock kills the graft. The graft in question had one flower 11½ inches across. I found it broken before it had withered, and plunged it rather deeply in a peat bed. This was a year ago, and I have kept it moist ever since planting. I am going to try some more cuttings. I note the measurement given of *Iris sofarana magnifica*. Surely they are wrong, or the flower is very tiny. *I. susiana* this year was much larger, the standards being 6½ inches long and 6 inches wide, whilst *I. Gatesii* was 14 inches across, the standards being 7 inches long and over 6 inches wide. The flower was open, as large across as a soup plate, I mean the standards were not upright like *sofarana*, but "flopped." It was like a gigantic Orchid. I fancy that it is unusual for Canterbury Bells to become perennial. We have a great many in the walled garden that are over four years old. The largest, a clear pint "cup and saucer," was about 3½ feet high and 3 feet through when it began to flower, a regular bush, with many hundred flowers open at once. Some of the white ones have become very perfect, duplex, a perfect bell inside the outer one, not "cup and saucer."—A. BAYLTON, *Dartmouth, South Devon*.



**The French Northern Chrysanthemum Society.**—Those of our readers who remember this society, whose headquarters are at Lille, may be interested to know that it has been largely reconstituted, and that its former official publication, the *Nord-Horticole*, has now been replaced by a periodical called *Annales de la Société des Chrysanthémistes du Nord de la France*. The second number, January to July, 1902, is just to hand, as is also the schedule of the society's show, to be held in the Palais Rameau, Lille, on November 14 to 18 next.

**Hastings and St. Leonards Summer Flower Show** will take place on Wednesday and Thursday, August 13 and 14 next, this being the first exhibition the society has held, and we hope it will prove successful. The hon. secretary is Mr. H. G. Stevens, Baldslow, St. Leonards-on-Sea. The members' Rose show was held on July 10, when a paper on "Roses" was read by Mr. H. Allcorn.

**A good early Strawberry.**—The variety Leader, sent out a few years since, is a good early Strawberry. We have had it here on the north-east coast of Essex for three seasons, and for size of fruit and excellence of flavour it is much better than Royal Sovereign, and ripens about the same time. Plants crop heavily the first season; it is of compact growth, and should be more popular. Perhaps soil and situation specially favour it here. I should like to know if my experience of it is general.—GEORGE TYLER, *The Lower Gardens, Dovercourt*.

**Iris Gatesii.**—Mr. W. H. Churchill kindly sends a photograph of *Iris Gatesii*. Our correspondent writes: "The flower was 2½ inches across. There appears to be a good deal of interest in *Oncocyclus* Irises just now. I have succeeded with eighteen this year, without any of Sir Michael

Foster's 'covering up' or the late Mr. Ewbank's frames (see article, page 408, in *THE GARDEN*). Would it be of any service to make a list to tell you what I can grow on this soil? If so, I will gladly do so. I do not pretend to be a scientific gardener, I merely spend what spare moments I have in a very busy life in the garden. These *Oncocyclus* Irises are curiously fascinating and singularly fickle."—[Yes, we shall gladly welcome Mr. Churchill's promised notes.—Ed.]

**American Chrysanthemum Society.**—If we remember aright the above-named society was founded about the year 1889. It was largely composed of members of the trade, and its work hitherto has been principally confined to the appointment of local committees in various cities of the union, which met for the purpose of adjudicating upon novelties and awarding certificates. Once, and only once, the society issued a catalogue of varieties, and it is regrettable that the experiment has not been repeated, for we here, in Europe, have very little opportunity of keeping fully posted up in American seedlings. The society has now, for the first time in its existence, decided to hold a show, and a glance at the schedule which is just to hand shows that very ample provision is made for a large and extensive display. In conjunction with the show we believe a convention will be held, at which various matters germane to the popular flower will be discussed. It is intended that the show shall be held jointly with the autumn show of the Chicago Horticultural Society in November next. Chrysanthemums have fifty-one classes allotted to them, the divisions being cut flowers, new varieties, and plants. Most of the classes have two prizes, while here and there some have three. They vary in value from a few shillings to £10. A special class is

framed for varieties of English origin, and a like one is provided for French varieties. The society of American florists offers medals in the classes for seedlings, sports, and undistributed importations. The schedule contains the rules of the two societies and the revised scales of the American Chrysanthemum Society.

**Heath Lodge, Twickenham.**—Amongst residences in this neighbourhood this is one of the oldest and most historical. It was originally the seat of Earl Ferrers, whom records tell us was hanged at Tyburn in 1760 for murdering his steward. Heath Lodge, however, possesses much more pleasant claims to attention in that the present house was inhabited by Isaac Swainson, F.R.S., in 1801. It may be remembered that a genus of evergreen shrubs—Swainsonia—from New Holland was named in compliment to this celebrated botanist. Indeed, it is to him that the grounds—which he laid out as a botanical garden—owe their fine old trees and shrubs. We read of them that they contained as excellent a horticultural collection as any in the kingdom, specimens of some of which are not to be found in Kew Gardens.—Quo.

**Evergreen and flowering shrubs.**—A lecture will be given on this subject by Mr. A. D. Richardson, at Messrs. Pennick and Co.'s, Delgany Nurseries, Greystone, this afternoon (Saturday).

**Water Lilies and their pale colouring.**—Most of my coloured or tinted Nymphaeas seem unusually pale this year. Such forms as *Laydekeri rosea*, *Mariacea carnea*, *M. rosea*, *M. Chromatella*, &c., probably from the cold sunless May. Mr. Burbidge noticed the same thing and drew my attention to it. Have other growers a like experience? *Ellisii* too, though good, is not quite up to the mark.—G. P., *County Dublin*.

# BRITISH-RAISED ROSES.

(Continued from page 6.)

Name.	Variety.	Raiser.	Date.	Colour.
Earl of Beaconsfield	H.P.	Captain Christy	1880	Carmine
Earl of Dufferin	"	A. Dickson and Sons	1887	Crimson
†Earl of Pembroke	"	Bennett	1882	"
Edith Bellenden	H.S.B.	Lord Penzance	1895	Pale rose
*Edith D'ombain	H.T.	A. Dickson and Sons	1902	"
†Edith Turner	H.P.	Turner	1898	Pink
Electra	Mult.	Veitch	1900	Cream
Elizabeth Vigneron	H.P.	W. Paul and Son	1865	Pink
Ella Gordon	"	"	1884	Crimson
Ellen Drew	"	Drew	1896	Rose
†Emily Laxton	"	Laxton	1877	"
Emperor	"	W. Paul and Son	1885	Maroon
Empress	"	"	1885	White
†Empress of India	"	Laxton	1876	Crimson
†Empress Alex'r. of Russia	Tea	W. Paul and Son	1897	Bronze
†Enchantress	"	"	1896	Cream
England's Glory	H.T.	J. Wood	1902	"
Ethel Brownlow	Tea	A. Dickson and Sons	1887	Rose & yellow
Exquisite	H.T.	W. Paul and Son	1899	Crimson
Fair Rosamond	Hybrid	"	1890	Blush-pink
Fairy Queen	Tea	"	1902	Fawn
Firebrand	H.P.	"	1874	Crimson
Flora McIvor	H.S.B.	Lord Penzance	1894	White & rose
Florence Paul	H.P.	W. Paul and Son	1886	Crimson
Fortuna	Tea	"	1902	Apricot
Frances Bloxham	Hybrid	Paul and Son	1892	Rose-salmon
Garden Favourite	H.P.	W. Paul and Son	1885	Rosy pink
†General Gordon	Tea	Bennett	1885	White
Gipsy	H.P.	Laxton	1885	Red
George Baker	"	Paul and Son	1881	"
Gladys Harkness	H.T.	A. Dickson and Sons	1900	Rose
Glory of Cheshunt	H.P.	Paul and Son	1880	Crimson
Glory of Waltham	"	W. Paul and Son	1865	"
†Golden Fairy	Poly'tha	Bennett	1889	Yellow & white
†Grace Darling	H.T.	"	1884	Pink
†Grandeur of Cheshunt	H.P.	Paul and Son	1894	Crimson
†Grand Mogul	"	W. Paul and Son	1886	Maroon
Green Mantle	H.S.B.	Lord Penzance	1895	Rich pink
†Haileybury	H.P.	Paul and Son	1896	Cerise
†Harrison Weir	"	Turner	1879	Dark crimson
*Helen Keller	"	A. Dickson and Sons	1895	Cerise
Heinrich Schultheis	"	Bennett	1882	Rose
*†Her Majesty	"	"	1885	Lustrous rose
Hon. G. Bancroft	H.T.	"	1878	Crimson
Inigo Jones	H.P.	W. Paul and Son	1886	Purplish crim.
Irish Beauty	Tea	A. Dickson and Sons	1900	White
Irish Glory	"	"	1900	Marbled pink
Irish Modesty	"	"	1900	Ecu pink
James Brownlow	H.P.	"	1889	Carmine.
Janet's Pride	Briar	Whitwell	1892	Wh. str'd pink
Jean Sisley	H.T.	Bennett	1878	Rose
†J. B. M. Camm	H.B.	Paul and Son	1899	Salmon-pink
†J. D. Pawle	H.P.	"	1889	Crimson
Jeannie Deans	H.S.B.	Lord Penzance	1895	Scarlet
Jeannie Dickson	H.P.	A. Dickson and Sons	1890	Deep pink
John Bright	"	Paul and Son	1878	Scarlet
†John Hopper	"	Ward	1862	Rose
John Ruskin	H.T.	A. Dickson and Sons	1902	"
John S. Mill	H.P.	Turner	1875	Red
Kathleen	H.T.	A. Dickson and Sons	1895	Coral
Killarney	"	"	1898	Flesh-pink
King's Acre	H.P.	Cranston	1864	Rose
†Lady Alice	H.T.	Paul and Son	1889	Flesh
†Lady Battersea	"	"	1901	Red
Lady Castlereagh	Tea	A. Dickson and Sons	1889	Yellowish rose
Lady Clamorris	H.T.	"	1900	Creamy white
Lady M. Beaucherc	"	"	1901	Madder rose
Lady M. Corry	Tea	"	1900	Golden yellow
†Lady Mary Fitzwilliam	H.T.	Bennett	1882	Rosy pink
†Lady Henry Grosvenor	"	"	1892	Rose-pink
Lady Arthur Hill	H.P.	A. Dickson and Sons	1887	Rose
Lady of the Lake	"	W. Paul and Son	1884	Peach
†Lady Penzance	H.S.B.	Lord Penzance	1894	Y'll'ish copper
†Lady Roberts	Tea	F. Cant and Co.	1902	R'd'ish apricot
Lady Sheffield	H.P.	W. Paul and Son	1881	Cerise
Lady Shelley	"	Mitchell	1853	Crimson
Lady H. Stewart	"	A. Dickson and Sons	1887	Scarlet
Lady Suffield	H.P.	W. Paul and Son	1866	Purple
Lady White	Macran.	Turner	1902	Pink
Lady Sarah Wilson	"	"	1902	Creamy blush
Laneii	Moss	Lane	1843	Red
†Lawrence Allen	H.P.	Cooling	1896	Pink
Letty Coles	Tea	Keynes	1875	Pale rose
†Liberty	H.T.	A. Dickson and Sons	1900	Crimson
Little Gem	Moss	W. Paul and Son	1880	Rose
Little Dot	Polyan.	Bennett	1889	White
Lilliput	"	Paul and Son	1897	Red
Longfellow	H.P.	"	1884	Violet-crimson
Lorna Doone	Bourbon	W. Paul and Son	1895	Carmine
Lord Bacon	H.P.	"	1884	Crimson
Lord F. Cavendish	"	Frettingham	1883	Red
Lord Clyde	"	W. Paul and Son	1863	Crimson

Name.	Variety.	Raiser.	Date.	Colour.	Name.	Variety.	Raiser.	Date.	Colour.
Lord Herbert	H.P.	W. Paul and Son	1863	Crimson	†Princess Beatrice	Tea	Bennett	1888	Yellow & rose
†Lord Macaulay	"	"	1863	"	†Princess Christian	H.P.	W. Paul and Son	1871	Salmon-pink
Lord Napier	"	Turner	"	"	†Princess Louise	"	Laxton	1869	Blush
†Lord Penzance	H.S.B.	Lord Penzance	1894	Fawn & yellow	†Princess Louise Victoria	"	Knigh	1872	Flesh
Longworth Beauty	Tea	Prince	1901	"	†Princess May	H.T.	W. Paul and Son	1894	Opaque pink
Longworth Fairy	"	"	1901	"	†Princess M. of Cambridge	H.P.	Paul and Son	1867	Soft pink
Lucy Ashton	H.S.B.	Lord Penzance	1894	White & pink	Princess of Wales	"	W. Paul and Son	1864	Red
†Lucy Bertram	"	"	1895	Crimson	"	Tea	Bennett	1882	Rose & yellow
M. Ada Carmody	Tea	W. Paul and Son	1898	Pink	†Psyche	H. Mult.	Paul and Son	1899	Pink
Maid of the Mist	H.T.	Bennett	1890	White	*†Purity	Hybrid	Cooling	1898	White
Mabel Morrison	H.P.	Broughton	1878	"	Purple East	"	Paul and Son	1900	Purple
†Mme. Norman Neruda	"	Paul and Son	1884	Rose	*Queen Alexandra	H. Mult.	Veitch	1901	Pink
Magna Charta	"	W. Paul and Son	1876	"	Queen of Autumn	H.P.	Paul and Son	1889	Red
Mamie	H.T.	A. Dickson and Sons	1901	Rosy carmine	†Queen of Bedders	Bou.	Noble	1876	Crimson
†Marchioness of Exeter	H.P.	Laxton	1877	Rose	Queen Eleanor	H.P.	W. Paul and Son	1876	Rose
†Marchioness of Downshire	"	A. Dickson and Sons	1894	Satin pink	†Queen Mab	China	"	1896	Apricot
†Marchioness of Dufferin	"	"	1891	Rose	Queen Olga of Greece	Tea	"	1898	Soft pink
†Marchioness of Lorne	"	W. Paul and Son	1890	Brilliant rose	Queen of Queens	H.P.	"	1884	Rose and pink
*†Marchioness of Londonderry	"	A. Dickson and Sons	1894	White	Queen of Waltham	"	"	1875	Cherry red
*Margaret Dickson	"	"	1891	"	Queen Victoria	"	A. Paul and Son	1850	Flesh white
Margaret Haywood	"	Haywood	1890	Rose	R. B. Cater	"	Cooling	1899	Red
Marjorie	H.T.	A. Dickson and Sons	1895	Rosy white	R. C. Sutton	"	Frettingham	1883	"
Mary Bennett	H.P.	Bennett	1885	Cerise	R. Dudley Baxter	"	W. Paul and Son	1879	Maroon
Marquis of Salisbury	"	Paul and Son	1879	Red	Red Dragon	"	"	1878	Red
Mary Pochin	"	Pochin	1882	Deep crimson	Red Gauntlet	"	Postans	1881	"
Masterpiece	"	W. Paul and Son	1880	Rosy crimson	Red Pet	China	Paul and Son	1889	"
Mavourneen	"	A. Dickson and Sons	1896	Blush	Red Rover	H.P.	W. Paul and Son	1863	"
†May Quennell	H.P.	Postans	1878	Magenta	†Rev. A. Cheales	"	Paul and Son	1896	Rose
†May Rivers	Tea	Rivers	1890	Cream	†Rev. J. B. M. Camm	"	Turner	1876	"
†Medea	Tea	W. Paul and Son	1891	Yellow	†Reynolds Hole	"	Paul and Son	1873	Maroon
Meg Merrilies	H.S.B.	Lord Penzance	1894	Crimson	Richard Laxton	"	Laxton	1877	Red
†Merrie England	H.P.	Harkness	1897	R'se, st'd bl'sh	Robert Burns	"	A. Paul and Son	1850	Crimson
Meta	Tea	A. Dickson and Sons	1898	Cr'd strawb'ry	Robert Duncan	"	A. Dickson and Sons	1897	Rose
Michael Saunders	H.T.	Bennett	1878	Rosy bronze	Robert Marnock	"	Paul and Son	1878	Brown crim
*Mildred Grant	"	A. Dickson and Sons	1901	Rosy white	†Rose Apples	Rugosa	"	1896	Rose
Milton	H.P.	W. Paul and Son	1901	Carmine	†Rose Button (R. lucida plena)	Lucida	Veitch	1885	"
†Minna	H.S.B.	Lord Penzance	1895	White	Rose Bradwardine	H.S.B.	Lord Penzance	1894	"
†Minutifolia alba	Poly.	Bennett	1888	"	Rosy Morn	H.P.	W. Paul and Son	1878	"
Miss Ethel Richardson	H.T.	A. Dickson and Sons	1897	Rosy white	Roslyn	"	A. Dickson and Sons	1900	Salmon rose
Miss Hassard	H.P.	Turner	1876	Flesh-pink	†Royal Scarlet	"	Paul and Son	1898	Scarlet
Miss House	"	House	1888	Satin white	†Royal Standard	"	Turner	1874	Rose
†Miss Ingram	"	Ingram	1867	Carnation	Saint George	"	W. Paul and Son	1874	Blackish crim.
Miss Marie Corelli	"	Prince	1902	Salmon-pink	*Salamander	"	"	1892	Scarlet
Miss Poole	"	Turner	1875	Silvery rose	†Salmonea	Tea	"	1902	Sal. & bronze
Miss Willmott	Indica	Paul and Son	1900	Coppery rose	*Sapho	"	"	1890	Apricot
Mr. Gladstone	H.P.	"	1870	Rose	Shandon	H.T.	A. Dickson and Sons	1899	Rose
Mrs. A. Waterer	Rugosa	Waterer	1896	Crimson	Sheila	"	"	1895	"
Mrs. Arthur Wilson	H.P.	Swailes	1895	"	†Silver Queen	H.P.	W. Paul and Son	1887	Pink
Mrs. Baker	"	Turner	1876	Carmine	†Sir G. Wolsley	"	Cranston	1876	Crimson
*†Mrs. B. R. Cant	Tea	B. R. Cant and Sons	1901	Rose	*Sir R. Hill	"	Mack	1888	Purple
*Mrs. Cocker	H.P.	Cocker	1899	Pink	*†Souvenir de S. A. Prince	Tea	Prince	1889	White
Mrs. C. Swailes	"	Swailes	1884	Flesh colour	†Spenser	H.P.	W. Paul and Son	1893	Pink
*Mrs. E. Mawley	Tea	A. Dickson and Sons	1899	Carmine	Stanwell Perpetual	P. Scotch Lee	"	"	Blush white
†Mrs. Frank Cant	H.P.	F. Cant and Co.	1899	Pink	†Star of Waltham	H.P.	W. Paul and Son	1875	Crimson
Mrs. F. W. Sanford	"	Curtis	1898	Blush white	†Sulphurea	Tea	"	1900	Sulphur
†Mrs. G. Dickson	"	Bennett	1884	Rose	Sultan of Zanzibar	H.P.	Paul and Son	1876	Maroon
†Mrs. Harkness	"	Harkness	1894	Rose & white	*†Sunrise	Tea	Piper	1899	Carm'e & fawn
†Mrs. H. Turner	"	Turner	1880	Crimson	†Sylph	"	W. Paul and Son	1895	Iv'ry-wh. & p'k
Mrs. J. Barnes	"	Ward	1866	Red	T. B. Haywood	H.P.	Paul and Son	1896	Dark crimson
†Mrs. Jowitt	"	Cranston	1880	Crimson	Tennyson	H.T.	W. Paul and Son	1899	Flesh-white
*Mrs. J. Laing	"	Bennett	1887	Silvery rose	The Alexandra	Tea	"	1900	Apricot
Mrs. J. Wilson	Tea	A. Dickson and Sons	1889	Lemon yellow	The Lion	Hybrid	Paul and Son	1900	Crimson
†Mrs. Laxton	H.P.	Laxton	1878	Rose	The Meteor	H.T.	Bennett	1887	"
†Mrs. Opie	"	Bell	1877	Salmon	†The Puritan	"	"	1887	Creamy white
*†Mrs. Paul	Bou.	Paul and Son	1891	White & pink	The Shah	H.P.	Paul and Son	1876	Scarlet
†Mrs. Rumsey	H.P.	Rumsey	1899	Pale pink	The Wallflower	Hybrid	"	1900	Crimson
*Mrs. R. G. Sharman Crawford	"	A. Dickson and Sons	1894	Rose	Tom Wood	H.P.	A. Dickson and Sons	1896	Red
Mrs. Stephen Treseder	Tea	Treseder	1901	Cream	T. W. Girdlestone	"	"	1891	Vermilion
*Mrs. W. J. Grant	H.T.	A. Dickson and Sons	1895	Pink	†Una	H. Briar	Paul and Son	1900	Pale cream
Mrs. W. Watson	H.P.	"	1890	Pale pink	*Ulster	H.P.	A. Dickson and Sons	1899	Salmon
Mrs. Ward	"	Ward	1866	Rose	Violet Queen	"	Paul and Son	1892	Violet
†Morning Glow	Tea	W. Paul and Son	1902	Orange & rose	Viscountess Falmouth	H.T.	Bennett	1879	Red
*Muriel Grahame	"	Brown	1896	Cream	Viscountess Folkestone	"	"	1886	Salmon-pink
Nancy Lee	H.T.	Bennett	1879	Rose	Vivid	H. China	A. Paul and Son	1853	Crimson
Oxonian	H.P.	Turner	1876	"	†Waltham Climber No. 1	H.T.	W. Paul and Son	1885	"
†Paul's Early Blush	"	Paul and Son	1894	Blush	" " " No. 2	"	"	1885	Pale red
Paul's Single Crimson	"	"	1883	Crimson	" " " No. 3	"	"	1885	Dark crimson
Paul's Single White	"	"	1883	White	Waltham Standard	H.P.	"	1897	Red
Peach Blossom	"	W. Paul and Son	1873	Peach	†W. F. Bennett	H.T.	Bennett	1886	Crimson
Pearl	H.T.	Bennett	1878	Flesh	†White Baroness	H.P.	Paul and Son	1889	White
†Penelope Mayo	H.P.	Davis	1879	Red	White Bath	Moss	Salter	1810	"
†Pink Rover	H.T.	W. Paul and Son	1891	Pink	†White Lady	H.T.	W. Paul and Son	1890	Creamy white
†President	Tea	A. Paul and Son	1860	"	White Provence	Provence	Grimwood	1778	White
†Pride of Reigate	H.P.	Brown	1884	Cr. st'd fl.-pk.	William Warden	H.P.	Mitchell	1879	Pink
†Pride of Waltham	"	W. Paul and Son	1881	Salmon	Wilson Saunders	"	Paul and Son	1874	Crimson
†Primrose Dame	Tea	Bennett	1887	Primrose	Zenobia	Moss	W. Paul and Son	1893	Satin rose
†Prince Albert	Bou.	A. Paul and Son	1853	Scarlet	Zephyr	Tea	"	1896	White & cream
†Prince Arthur	H.P.	B. R. Cant and Sons	1875	Crimson	* Gold medal, National Rose Society. † Award of merit, Royal Horticultural Society. ‡ First-class certificate, Royal Horticultural Society.				
†Prince de Joinville	H. Bou.	W. Paul and Son	1864	Carmine					
†Prince Leopold	H.P.	"	1869	Red					
†Prince of Wales	"	Laxton	1869	Rose					
†Princess Alice	Moss	A. Paul and Son	1853	"					
†Princess Beatrice	H.P.	W. Paul and Son	1872	Pink					



NOTES ON HARDY PLANTS

NOTES FROM SWAINSWICK.

**I**N *Heuchera cylindrica* I may have a rarity, but certainly not a prized possession. In fact, without exercising the slightest generosity, I am willing to present *H. cylindrica*—a fine healthy plant—to anyone who cares to ask for it. It came in the Royal Horticultural Society's bonus parcel last year, and is now midway through what it presumably considers its flowering. It is bigger in leaf and stronger in growth than *H. sanguinea* and one or two others I have, and made a vast display of flower-stems and buds. These latter opened in the usual way, but had nothing inside them beyond a sort of pin-speck of colour on the bunch of stamens. As things are—and as I have



BROAD-LEAVED SIBERIAN SAXIFRAGE (*MEGASEA LIGULATA*).

never seen it elsewhere I do not know whether this plant is normal, but it is certainly in great vigour—I call it a weed, and an ugly one at that. Possibly its leafage may be nicely coloured later on. One of the prettiest things of the moment here is

**CISTUS FLORENTINUS.**

Until this spring it was planted in a very draughty corner on a bit of rockwork which only got a modicum of sun; even there it did well. Now, having acquired a real garden in place of an oblong plot of builder's rubbish and effete "eligible site," I have transferred it to a bed of strong loam mixed with weed-bonfire residue, and it is flowering madly. I find it grows very fast up to a certain point, but when, at two or three years old, it has made a compact little bush 18 inches or 2 feet high, it appears to devote all its energies to blossoming. The white golden centred flowers are

very showy, although individually fugitive, like those of all the family, and the plant goes on blooming profusely for a very long time. I have a peculiar affection for *Cistus*es on account of their want of exaction; when nearly all the other plants round are crying for attention, and afford a flabby reproach to the gardener, who has other things to do besides perpetual watering, the *Cistus* is revelling in the heat and sunshine, and always contented. Besides, one so seldom sees the self-coloured ones, that they, at any rate, are pleasing from their uncommonness alone. I should like advice as to the treatment of a seedling

GERBERA JAMESONI.

It makes very slow progress in a 3-inch pot, although perfectly healthy. Seedlings at 2s. 6d. apiece seem rather too precious to risk out of doors in the four leaf stage, but as there are not many "vermins" in this garden—it consists in great part of wild woodland, and whether for this reason or another the cultivated part is singularly free from slugs—it might do better put out. At present it is in a sunny position under (unheated) glass. What a lovely thing the yellow

TREE LUPINE

is, and how persistently it flowers! I had to leave behind a three year old bush which showed no signs of decay and was full of bud in May, but after losing half a dozen cuttings, managed to strike one, which will, I hope, make a good plant. I found that when placed in a propagator all the leaves quickly dropped off the cuttings; the successful one was simply stuck into a small pot of sandy soil and stood under some Ferns growing in a cold house, which shaded it. There has been a great deal of admiration expressed for the comparatively new white Tree Lupine, but I think the yellow one, with its peculiarly soft green, contrasting so prettily with the clear Primrose flowers, much more charming. This is, however, purely a matter of taste.

M. S. WILLIAMS.

The Cottage, Upper Swainswick, Bath.

MEGASEA LIGULATA.

By whatever name the varieties of this broad-leaved Siberian Saxifrage are known, there can be no doubt of the merit of the best forms for the early spring garden. I do not think they are suitable for beds, for spring frosts then often destroy the too early spikes of flower, but on banks under trees or in bold groups in vases it is really of most refined beauty, as the accompanying photograph shows. Altogether it is a plant well suited to artistic use, and demands special treatment in consequence. It lends itself remarkably well to all stonework, whether architectural or rustic, and its fine foliage turns to a brilliant red sometimes when the summer has been warm.

E. H. WOODALL.

PRIMULA STUARTII.

IN his interesting "Notes from Baden-Baden," in THE GARDEN of June 21, Mr. Max Leichtlin

speaks of *Primula Stuartii* wanting moisture and shade in summer, and a dry, sunny position in winter. In my garden I do not find that it objects to remaining in winter in a moist shady position, in fact, that which it occupies in summer, though it has, of course, no artificial watering in the winter. Climatic differences may account for this, but growers of this lovely Primrose in this country may like to know how it does here.

Carsethorn, by Dumfries, N.B. S. ARNOTT.

THE KITCHEN GARDEN.

ASPARAGUS BEDS AFTER CUTTING.

**O**PINIONS are divided as to the best time to feed Asparagus, but there can be no doubt that the plants need ample food, both in the way of liquid manure and otherwise, when making a free top growth. Much also may be done in the way of top-dressing, giving new soil and, what is often neglected, support to the strong growths, as the latter are important factors in building up strong crowns for another season. As regards the season, I mean the date at which cutting should cease, much depends upon the strength of the plants. Some seasons the growths start later than others. In our own case we cut well into July, but at that late period a special bed is required for cutting. There is no doubt that the plants are best if not cut over after midsummer, and, if at all weak, only the strongest grass cut up to that date. I will take

FEEDING

first and protection afterwards. Top-dressing with new soil is best done when the plant is at rest, though it is only fair to state many plants suffer at this time of year when the roots are near the surface. Our best material this season has been cut from beds where there was ample surface soil, and this point should not be lost sight of.

There is no better stimulating food than liquid manure from stables. The saline qualities of the liquid just suit the plant, and if a system of irrigation can be employed so much the better. It may be asked how often should liquid manure be given. Much depends upon the strength of the liquid; if at all strong it may with advantage be mixed with water and applied copiously once a week. This season I have, for the first time, used some special Asparagus manure made by Messrs. Willis, of Harpenden, and we never had better grass. I am aware, in a measure, our soil is very light. The wet season lasting well into June favoured good growth, and if artificial foods were given, these could be taken down to the roots more readily. For Asparagus dressing from May to August I am sure many could use artificial foods to advantage if ample moisture were given in dry seasons. Such foods as nitrate of soda may be given as soon as the cutting ceases, the nitrate applied at the rate of 2oz. to 3oz. per square yard, and in using strong foods, such as the last-named, it is best to give, say, 2oz. than more and at shorter intervals, than a strong dose at one time. There are some excellent foods for Asparagus. Fish manure and guano are both suitable, but these are best applied in showery weather or well washed in by liberal waterings. Other equally good fertilisers are soot and salt. These two, though simple aids, are excellent during the earlier stages of growth, and in heavy soils salt is more beneficial if used when growth has ceased or is less active.

It is easier to feed plants in robust condition than weakly ones, as the latter need less food; I mean, having weaker roots, are not able to absorb the food given, and the above advice refers to plants that have given a full crop. In the case of weakly plants it does not pay to keep such beds, as new ones would be more satisfactory, and where this plant is lifted and forced it is an easy matter to use up such plants. I have seen it stated that



beds are weak on account of old age, but this is rarely the case if the plant is well grown, for though a portion of the crown dies, roots also, with healthy plants new and stronger growth should replace the old growth annually. In places here and there there may be blank spaces, and these should be made good in the early spring. I am aware the plants may be safely lifted up to midsummer, but at this late season more after-care is needed in the way of shade and moisture. Doubtless the best time to plant is in April. It is an easy matter in the autumn when cutting the top growth to mark the blank spaces with labels or sticks and make good at the time named; of course a much easier way would be to sow a few seeds, but I do not advise it, as by so doing the beds get crowded, and it is not well to have young and old roots mixed.

I have referred to giving the roots a deeper covering of soil where at all deficient, and even now I would not hesitate to do this. I have found partially decayed cow manure excellent at this season for thin light soils. For young beds a mulch may be given, and spent manure or an old Mushroom bed will be good and prevent the roots getting too dry. In the autumn or winter months shallow beds may with advantage receive a good covering of soil, as unless there is ample top soil there will be short growths of poorer flavour. I must not omit to note the value of protecting the summer growths when made. Winds often play sad havoc with these if at all large, and they must be large to be serviceable. It may be thought unnecessary, but it is very important that the top growth should not be broken till it is nearly ripe. If damaged in a green state crown growth is arrested. Plants given ample room often make growths 5 feet to 6 feet, and with a heavy green top these are soon injured. Where plenty of room is given the plants between the rows a few strands of twine and stakes at intervals form a good protection; with plants in thick beds a few Pea sticks or bushes between the plants here and there will preserve the growths.

G. WYTHES.

## NOTES FROM SCOTLAND.

### SHRUBS.

It is one of the wonders of this odd season that plants generally considered unsuitable for our Scottish climate should have developed their true beauty. For instance, earlier in the year

#### PHYLLANTHUS NEPALENSIS

clothed its green rod-like stems with tufts of pretty yellow flowers, the stems in some cases to a length of 3 feet, and at present it is making growth, the foliage of the most exquisite green and rivalled only by the lovely stems. This is grown in the open. Our latest acquisition to flower is

*BENTHAMIA FRAGIFERA* (the Strawberry Tree), also quite exposed. There are three specimens altogether of equal age, about thirty years from the seed, but only one has flowered, and that in the most open position and in heavy soil. I do not remember another instance of its pretty and agreeably-scented flowers to have been produced previously so far North, and I believe in the South of England it is mostly grown against a wall. We have, of course, to thank the abnormally warm dry summer of 1901 for the display of flowers this year, and also, perhaps, the age of the tree. To hope for fruit is, I am afraid, too much.

#### BROUSSONETIA KEMPFERI.

This quaint-looking plant is in flower and bud. It flowers in little oval bunches, which, in the bud, are dark brown, and these are dotted thickly all over the plant, one, in fact, in the axil of each leaf, which, too, is brown. When expanded there is really no flower, but each bud produces three or four stamens, each of which is crowned with a yellow anther. The flowers on the tree here are all male, and to judge from the manner the stamens are arranged one would imagine each one is trying to get away as far as possible from its neighbour. When fully expanded

the foliage of the *Broussonetia* is very beautiful.

#### VIBURNUM PLICATUM

is at present in perfect condition, the flower heads perhaps a little smaller than in a more propitious year, but it is altogether so good a thing that really no one should be without it. It is perfectly hardy here. The same may be said of

#### CHOISYA TERNATA,

a large bush of which in the open has been smothered in bloom. It is a subject that seems much harder than is generally believed. A stock is so easily got up from cuttings that even in very cold situations it might well be given a trial.

#### STEPHANANDRA FLEXUOSA

is making very strong and long shoots, and at present those of last year's production are dotted with small sprays of white bloom. The foliage reminds one of that of the Gooseberry, and the aspect of the plant as a whole is most pleasing. To induce the pushing of strong shoots the weaker growths should be removed as required. The evils of budding and grafting have been emphasised in the case of several plants lately. André's Broom is now mostly all dead or reduced to Laburnum Stocks, and a nice standard of the lovely *Prunus triloba* fl.-pl. that has been attended to during several years has this season lost nearly the whole of its head.

#### NANDINA DOMESTICA.

This plant was much damaged by the cold in winter, losing nearly all its old foliage, but I am glad to see new leaves are being formed. It has flowered in former years, and is, I believe, considered not quite hardy in many parts of England.

#### FRUIT PROSPECTS.

It is certain that the present will not be by any means a first-class one for fruit. Blossom was most abundant, but the weather everywhere was generally very unsatisfactory, hence here and there one hears sad complaints of probable small crops. Though it was very cold, with snow and cold rains when Apricots and Peaches flowered, these set very favourably, and now the trees are thinned the prospects are generally good. Plums, however, are not so satisfactory, and in some places there appears to be a blank. Pears, a very important wall crop in Scotland, are somewhat erratic. Some varieties have set well, others not at all, and localities show varying prospects. As a rule it will, I think, be safe to say that it will be difficult to provide an uninterrupted supply. In many gardens Strawberries have suffered extremely, and they are very late. Currants, too, are less plentiful than usual; but the most disappointing of all crops is that of the Apple. It is seldom that blossom has been so abundant, but the weather was so cold that it was impossible to secure a set. The result is that only certain varieties that were flowering during the best of the weather have set, and in these instances the



KALANCHOE KEWENSIS, SHOWING ITS PANICLE OF ROSE-PINK FLOWERS.

trees are very thickly cropped and will require thinning.

#### GOGAR PIPPIN APPLE.

Our Apple supply is just about finished, and as there has been much correspondence in *THE GARDEN* about late varieties for the North, I may perhaps be permitted to recommend a small but splendid late Apple called Gogar Pippin. It is classed as a dessert fruit, and the flesh is of a different quality to the highly esteemed Northern Greening, but when thinned to a fair crop and left to hang as long into November as possible before storing, it proves one of the best late kitchen Apples, keeping much later than Northern Greening.

R. P. B.

## NEW AND INTERESTING PLANTS.

#### KALANCHOE KEWENSIS.

By crossing the bright coloured *K. flammea* with a large white-flowered species called *K. Bentii*, a remarkable and decidedly beautiful hybrid has been raised at Kew. *K. flammea* will be remembered as a new species introduced to Kew from Somaliland and flowered for the first time in 1897. The stock afterwards passed into the hands of Messrs. J. Veitch and Sons, who distributed it. In general habit it is not unlike *K. glaucescens*, but the leaves are fleshy, tongue-shaped, crenate, and the flowers are of an intense scarlet colour. *K. Bentii* was introduced to



Kew from South Arabia and flowered in 1900, when it was named by Sir Joseph Hooker to commemorate the services to botany of the late Mr. Theodore Bent, the archæologist and traveller. The plant that flowered at Kew had an erect unbranched stem 3 feet high, with opposite sub-cylindrical fleshy leaves from 3 inches to 6 inches long, and a panicle of pure white flowers, each  $1\frac{1}{2}$  inches long and nearly 1 inch across. It is remarkable that the result of crossing a white and a scarlet-flowered species should be a hybrid with bright rose-pink flowers, whilst the leaves are more or less pinnatifid. There is a good batch of plants from this cross, and they all show the same leaf characters. On the other hand, the reverse cross, *i.e.*, with *K. Bentii* as the mother parent, the seedlings all have simple sub-cylindrical leaves, and they are barely 6 inches high, whilst the hybrid is fully 4 feet high.

## PRUNING HARDY SHRUBS.

(Continued from Vol. LXI., page 428.)

**PERIPLOCA.**—A climbing genus which should be thinned out in winter, and only shortened back if necessary.

**Philadelphus.**—These should be thinned after flowering, and the old wood cut back to strong young shoots. This is especially important with *P. microphyllus*, *P. coronarius*, and *P. Lemoinei* and its varieties.

**Photinia.**—Require no pruning.

**Pieris.**—Remove seed-pods.

**Potentilla.**—Thin out after flowering and shorten any old wood back to strong young breaks.

**Prunus.**—In a young state all the members of this genus that are grafted or budded are improved by being cut back each spring until they have attained a fair size and shape. More especially is this the case with the Almonds, double-flowered Peaches, and the various flowering Cherries. When older they need only be thinned, and the flowering Plums and Cherries kept spurred in, but not too hard. *Prunus japonica*, *P. nana*, and *P. triloba* should be cut down to strong young breaks after flowering, the resulting wood bearing better flowers than the old wood. If either of these three latter is grown on a wall it should be spurred back hard after blooming.

**Ptelea.**—In a young state these should be kept trimmed to form small trees, and not be allowed to develop into ungainly bushes. When older they require an occasional thinning. *P. trifoliata* var. *aurea*, a golden form which is not grown so much as it deserves to be, should be cut back annually or biennially, the young wood being better coloured and bearing larger leaves than the old.

**Pyrus.**—The wild Pears should be spurred in the same manner as adopted for fruiting Pears, though not quite so hard. The wild Crab Apples, such as *P. baccata*, *P. floribunda*, *P. spectabilis*, &c., should be cut back every spring until they have formed well-balanced heads. Afterwards an annual thinning and a shortening of the longest shoots after flowering is sufficient. The remaining sections of *Pyrus* merely require an occasional thinning. *P. japonica* should be kept spurred in whether growing on a wall or in the open, and in the latter case should not be allowed to become a mass of weakly shoots.

**Rhamnus.**—These should be thinned out if becoming too thick, but as a rule they require very little pruning.

**Rhododendron (including Azalea).**—Remove all seed-pods immediately the flowers are over, and any plants that are in a sickly condition

should be cut down at the same time. By doing this a season or two of flower is lost, but it is practically the only means of bringing a weakly plant back to health again.

**Rhodotypos.**—Cut away all old wood and encourage the strongest of the young growths.

**Rhus.**—Keep these well thinned out, and destroy all suckers that appear unless wanted for stocks. Gloves should always be worn when handling any of the *Rhus*, as the sap of all is poisonous to a certain extent.

**Ribes.**—All the *Ribes* are improved by being cut down annually while in a young state, but when older a yearly thinning out of the old wood is sufficient.

**Robinia.**—This is a genus that requires very little pruning when the members of it have attained a fair size, an occasional thinning being all that is necessary. In a young state they require well staking, and the longest shoots should be shortened back, as many of them are top-heavy when young.

**Rosa.**—Although the various garden Roses come under this heading, yet they are a class apart, and are better dealt with by specialists. The species of *Rosa* do not require any shortening of their shoots, which should always be left at full length; but all of them should have an annual thinning out of the old wood, either cutting it right away or back to a young shoot. Some of the species are very prone to throw up suckers from underground, sometimes to a considerable distance from the plant, and these should always be dug out and got rid of, merely cutting them off only producing two evils in the place of one.

**Rubus.**—This genus includes the Blackberry and Raspberry, and, in a modified form, the treatment accorded to them for fruiting is the best to employ with the ornamental *Rubi*, that is, all old wood which has flowered should be cut away and young strong canes encouraged; but while in the cultivation of the Raspberry only a few young canes are allowed to grow, in the ornamental species practically every young growth should be utilised. The double-flowered *Rubi* should have some of the old wood left, as they do not make so much young growth as the single ones do.

**Santolina.**—This is a dwarf-growing genus, the old flower-heads of which should be cut away as soon as they are past, and any long or straggling growths cut back at the same time.

**Sambucus.**—The Elders require very little pruning as a rule, but the various cut-leaved golden or variegated forms are improved by being cut back annually. This will prevent their flowering, but as good foliage is required the loss of the bloom is a matter of little consequence.

**Skimmia.**—Require no pruning.

**Smilar.**—The hardy species of this genus do not require any pruning if they have room to ramble. If space is restricted, thin out and shorten in autumn.

**Sophora.**—These should be kept thinned when they have attained flowering size; in a young state they should be kept to a single stem and induced to form well-shaped trees.

**Spartium.**—This should be cut back in a small state, but when older it requires no pruning whatever.

**Spiraea.**—Although all the *Spiræas* will flower on the old wood, the following are better for being cut back in winter to form young flowering shoots, *viz.*, *S. betulifolia*, *S. Douglasii*, *S. Foxii*, *S. japonica*, *S. Margaritæ*, *S. salicifolia*, *S. semperflorens*, *S. tomentosa*, and many of their varieties and hybrids. The remaining *Spiræas* should be kept thinned out, and if any are making strong young breaks from the lower part of the plant they can be cut back to them after flowering.

**Stachyurus.**—This should be thinned out after flowering.

**Staphylea.**—*S. pinnata* should be kept thinned in late summer; *S. colchica* and *S. Colombieri* require very little pruning, but if too tall or unshapely should be cut back immediately after flowering.

**Stuartia.**—Require no pruning.

**Styrax.**—Require no pruning.

**Sueda.**—Cut back occasionally to keep it from getting ragged.

**Symphoricarpos.**—Keep these well thinned out, which should be done in late summer.

**Syringa (Lilac).**—These should be kept free of suckers, especially the finer named kinds, which are usually worked on stocks of the common Lilac. In addition, disbudding may be practised with advantage in the spring, removing the majority of the blind shoots and any flowering or leading shoots that are misplaced or not required. This should be done twice or thrice at intervals of ten days or a fortnight.

**Tamarix.**—Cut back in a young state, but when older they should not be pruned at all.

**Vaccinium.**—The removal of any old or rough wood is sufficient for these.

**Viburnum.**—All the *Viburnums* grow thickly and require an annual thinning.



KALANCHOE KEWENSIS, SHOWING THE UPRIGHT STEM, LEAVES, AND MANNER OF FLOWERING.





BUSH STANDARD TREE OF MAY DUKE CHERRY IN THE ROYAL GARDENS, FROGMORE.

*Vitis*.—The methods practised in growing Vines for fruit suit the ornamental species as well. If space is restricted they should be grown on the spur system, but if there is plenty of room then the extension system may be employed.

*Wistaria*.—These should be kept spurred in, with the exception of the leading shoots, which merely require shortening in early spring, according to the strength of the plant.

*Xanthoceras*.—Require no pruning.

*Zenobia*.—These require no pruning as a rule, but occasionally a hard cutting back will induce healthy growth in place of a weakly one.

Bagshot, Surrey.

J. CLARK.

## BUSH AND FAN-TRAINED CHERRY TREES.

### A BUSH CHERRY TREE.

THE form of training the Cherry Tree—when planted in the orchard or the open quarter of the garden—most favoured by growers is the standard or half standard, and sometimes as a pyramid, but it is not so frequently seen as a bush. That the Cherry succeeds well trained in this way is apparent from the accompanying illustration of a well-grown bush of May Duke. The bush has many points to recommend it, not the least being the economy of labour in its management. It is pruned with ease, and without the aid of steps or ladders. Its low form is convenient for netting against the depredation of birds, for picking the fruit when ripe, and it is not so exposed to damage by high winds as are trees of higher growth.

### A FAN-TRAINED CHERRY TREE.

Not the least puzzling of the many puzzles that confront the amateur fruit grower in his early attempts at mastering the art of fruit growing is to find out how to properly train a

fruit tree. In the hope of being some help to any such we give an illustration of a well-trained young Cherry Tree growing on a wall at the Royal Horticultural Society's gardens at Chiswick. It will be noticed how evenly and regularly the flowers are disposed all over the surface of the tree, and that, through timely disbudding, the tree is not over-weighted with bloom, but is furnished with the requisite number to secure a good crop. More flowers would have been useless and even harmful.

W. E.

## MOUNTAIN PRIMULAS.

(Continued from Vol. LXXI., page 430.)

### MARSH-LOVING SPECIES.

A good number of species are found in this section. They grow in peat bogs, in marshy mountain pastures, and by the sides of streams, and comprise the sections *Auriculata*, *Farinosa*, *Minutissima*, *Nivalis*, *Cordifolia*, and *Prolifera*.

*P. algida* (Adams).—Native of the mountains of the Caucasus, of Turkestan, Persia, and the Songari and Altai ranges. Syns. *P. bungeana* (Mey.), *auriculata* (Led. non Lam.), and *caucasica* (Koch). This plant has some analogy with *P. farinosa*, from which it differs by its large spatulate-obtuse finely-toothed leaves, and by its large corolla of an intense violet colour, and above all by its globular capsule, which is longer than the calyx. Ruprecht has made known two varieties, one *denudata* (Rupr.), with the upper side of the leaf glabrous, and the other *luteo-farinosa* (Rupr.), where it is mealy. Regel has published the varieties *cuspidens* with cuspidate denticulate leaves and green calyx, and *colorata* with a deep violet calyx.

*P. altaica* (Lehm.).—A synonym of *P. farinosa* var. *longiscapa*.

*P. auriculata* (Lam.).—From the alpine regions of the Caucasus (6,000 feet to 11,000 feet). Syn. *P. longifolia* (Curt.), *P. pycnorrhiza* (Led.), *P. macrophila* (Koch), *P. Tournefortii* (Rupr.), *P. glacialis* (Adams). Figured in Curtis's *Bot. Mag.* t. 392.

Very near the last, with which it is generally confounded in gardens, but distinguished chiefly by the tube of the corolla being much longer than the calyx and by the much shorter and more ovate capsule. Franchet has recorded a variety *polypphylla*, a native of Yunnan, which may be a separate species.



DESSERT WALL CHERRY IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS, CHISWICK.



*P. elliptica* (Royle), syn. *P. spathulacea* (Jacquem.).—From the high valleys of Kashmir and the Western Himalayas, between 6,000 feet and 14,000 feet. Leaves small, ovate-orbicular, deeply-toothed, glabrous above and glaucous beneath, narrowing gradually into a more or less winged petiole. Flower stem flexible, 6 inches to 12 inches high; flowers two to three, purplish. It has the habit of *P. rosea*. It is very rare in cultivation, even if it has ever been introduced. I have only seen it dried and in herbaria. Several horticultural catalogues have offered it, but I have always received *P. luteola* or *P. rosea*—never the true *elliptica*.\*



PRIMULA FARINOSA (LIFE SIZE).

*P. farinosa* (L.).—Figured in Reichenbach's "Icones," xvii., t. 51. This well-known plant grows in the mountainous and sub-alpine regions of Europe, of Central and Northern Asia, and of Northern and Arctic America, where it is found in damp, cool meadows. Leaves ovate-obtuse, crenate, white underneath with mealy powder; flower-stem 4 inches to 8 inches high; flowers pale or bright pink, on short pedicels, calyx teeth nearly obtuse and triangular.

\* The *Gardeners' Chronicle* of April 26, 1884, page 541, contains a very interesting note on some of the Himalayan *Primulas* which had then not been introduced, and appear not to have reached us even yet. At page 545 there is an excellent illustration, admirably drawn, showing nine Himalayan species, namely, *P. clusiana*, *gambelliana*, *muscoides*, *musc. var. tenuiloba*, *pulehria*, *soldanellioides*, *sapphirina*, *tenella*, and *uniflora*. They are beautiful species, and it is regrettable that they are not yet to be had—at least, as far as I am aware—in gardens.

† Some years ago we received the seed of this plant from Kittila in the Lappmarken of Finland; it germinated well and flowered. But we have lost it for some years, and as we have received no answers from our correspondent at Kittila, we have been unable to procure it again. I should be grateful if any reader of THE GARDEN could put me in communication with any forester, or chemist, or any one who could give me information in these distant regions. It cannot be of very frequent occurrence, for Brenner, in his "Floristik Handboek" (the only Flora of this country that I have) does not record it, naming only the rather near type *P. siberica*.

It is not infrequently found with pure white or very pale pink flowers. There are a large number of varieties, of which the following are the most important:—

*P. f. Warei* (Stein).—Leaves regularly dentate-crenate, flowers dark violet.

*P. f. lepida* (Pax), syn. *hornemanniana* (Lehm.), *denudata* (Led.).—Under this name it is figured in Reichenbach's "Icones," xvii., t. 51, iii. Leaves of one colour, not mealy, and only slightly toothed.

*P. f. exigua* (Pax), syn. *denudata* (Panc).—Bulgaria. Flowers very small, barely 5 inches high; leaves almost entire, teeth of the calyx acute; tube of the corolla longer than the calyx; seeds yellow, not brown.

*P. f. armena* (Koch) syn. *luteo-farinosa* (Rgl.), *xanthophylla* (Traut).—From the Caucasus, Turkestan, Siberia, Dauria, and Japan. Plant small, 1 inch to 4½ inches high; leaves often finely denticulate, very powdery, yellow-white underneath; flowers on short pedicels, calyx green or purplish, shorter than the tube of the corolla.

*P. f. mistassinica* (Pax) syn. *P. mistassinica* (Mich.), *gigantea* (Lehm.), *borealis* (Duby), *parvifolia* (Duby), *modesta* (Bisset).—From Arctic America and Eastern Siberia.

This plant is midway between *P. farinosa* and *P. stricta*. It is a handsome species between 4 inches and 10 inches high, with a stout strong stem; leaves slightly mealy, rhomboid-elliptical or spatulate, narrowing suddenly into the petiole, with an umbel of from eight to ten flowers; the tube of the corolla is the same length as the calyx, or very slightly longer; flowers rosy, with the lobes deeply indented into a heart-shape.

*P. f. longiscapa* (Header.), syn. *P. intermedia* (Curt. in *Bot. Mag.* t. 1219), *exaltata* (Lehm.), *davurica* (Lehm.), *altaica* (Lehm.).—The Caucasus, Siberia, and Dauria. A tall plant, sometimes over a foot high; leaves not mealy, obovate-lanceolate. Flowers rose-coloured, carried on very stiff pedicels. Tube of the corolla longer than the calyx.

*P. f. undulata* (Fisch.).—Only differing from the last by its crenate-dentate leaves.

*P. f. magellanica* (Hook. Flor. antarct. Tab. 60), syn. *P. magellanica* (Lehm.), *decipiens* (Duby).—Straits of Magellan. A stout plant with strong, thick stem, about 7 inches high; leaves rhomboid-elliptical, almost acute, crenate-dentate. Flowers white, capitate or on very short pedicels, teeth of the calyx acute, stouter than the tube of the corolla.

The habitat of this plant is one of the most curious in phytogeography. How this northern species has contrived to jump over the whole American continent, to pass the Equator, and to establish itself in the extreme south is a mystery as yet unexplained by science.

*P. f. concinna* (Pax) syn. *P. concinna* (Watt.).—From the Himalayas to Sikkim, between 15,000 feet and 16,500 feet. It is nothing but a form of *P. farinosa*, of feeble habit and small size.

*P. finmarchica* (Jacq.) syn. *P. norvegica* (Retz.).—From the northern plains of Finland and Scandinavia.†

It is a pretty little plant, pale and delicate, with smooth, roundish, entire leaves; flowers small, a quarter of an inch to five-sixteenths of

an inch in diameter, of a bluish white colour, few in number, and carried on stiff, upright pedicels.

*P. frondosa* (Janka), syn. *P. algida* (Janka non Ad.).—From the Balkans. A plant near *P. farinosa*, but that cannot be confounded with it because of the leaves being wide and very gradually diminished to the petiole; they are widely spatulate, obtuse and powdery on both sides. The whole plant is stouter and more mealy than *P. farinosa*. It is a handsome plant of easy culture; in the climate of Geneva we find it flowers more freely than *farinosa*. We were able to introduce it into cultivation in Switzerland ten years ago, thanks to the kind assistance of H.R.H. Prince Ferdinand of Bulgaria, who is a great admirer of the mountain flora.

*P. grandis* (Traut.).—From the Western Caucasus, 6,000 feet to 10,000 feet. A handsome species with large, wide leaves, 4 inches



PRIMULA LONGIFLORA (LIFE SIZE).

long by 3 inches wide; flower-stem over a foot long, pedicels over 2 inches; flowers drooping, corolla yellow, cylindrical, with upright lobes. We have grown it for twelve years at Geneva, but it has never bloomed. Messrs. Levier and Sommer, who brought me the seed after their travels in the Caucasus in 1890, told me that when growing in wet soil at the edge of tor-



rents the plant attains a much greater size than the dimensions I have quoted from Boissier.† But they did not see it in flower, as they reached its habitat too late. Alboff has told me that he has seen specimens 2 feet high, with leaves  $3\frac{1}{2}$  inches long and  $2\frac{1}{2}$  inches wide. But, while Boissier describes the teeth of the calyx as ovate-acute, Alboff § describes them as triangular. The leaf is characterised by the edge being suddenly contracted into the winged petiole.

I am unable to give a rule for cultivation, for, as I have said, though we can easily grow and increase the plant, we have never yet flowered it: all that I can say is that it likes moisture.

*P. involucrata* (Wall.) syn. *P. obtusifolia*.—From the alpine regions of the Himalayas of Kashmir and Sikkim, between 12,000 feet and 15,000 feet (*Botanical Register*, 1847, t. 31). Height 6 inches to 8 inches. Leaves upright ovate-lanceolate, of a fine green colour, quite glabrous, suddenly contracted to the petiole. Flowers bluish white or opaline; pedicels rather long, allowing the flower to droop a little; involucre membranous and divided at the point where the pedicels spring. It flowers in May, June, and July. Lindley records a variety *Munroi* with scented flowers, with the corolla slightly swelled and with lobes more deeply cut.

*P. japonica* (A. Gray), Japan (Nippon and Jesso).—A well-known plant, 12 inches to 16 inches high, introduced in 1871. Flowers in whorls, one over another; corolla purplish crimson in the type, variously coloured in the garden varieties. Grown by the side of a stream or in damp spongy ground it grows to a large size and has a striking effect.

Franchet has published a variety named *angustidens*, which comes from Southern China.

*P. longiflora* (All.).—Figured in Reichenbach's "Icones," xvii., t. 51 f. iv., v. Alps of Valais, of the Tyrol, of Lombardy, and Transylvania, the Carpathians Bosnia and Montenegro, between 4,500 feet and 6,000 feet.

A very beautiful species, quite distinct and characteristic. Leaves ovate-elliptical, slightly toothed, lightly powdered on the under surface only, widened to the base. Flower-stem thick, 8 inches to 12 inches high; flowers large, rose-coloured; tube of the corolla much lengthened.

This is one of the alpine *Primulus* which does best in gardens, flowering in April and May.

Brügger found in the Engadine a hybrid of *P. farinosa* and *longiflora*, which he named *P. kraetliana*.

Geneva. H. CORREVON.

(To be continued.)

## THE FRUIT GARDEN.

### THE CHERRY CROP.

**W**HEN the severe frosts a month or two ago spread devastation amongst the crops in gardens and orchards, the Kentish growers felt anxious. Till then the prospects had been most fair, the trees bloomed profusely, and the outlook was of the brightest. Then came frost and wet that threatened to destroy the Cherry crop; but, fortunately, things have not turned out so bad as at one time appeared. The sunshine of the last half of June has done wonders for the Cherries, and though there is only half a crop instead of a full one, this is a far better state of affairs than was at one time anticipated, and the prices already obtained for the earliest pickings bid fair to show

a profit at the end of the season for those who can boast of only half a crop.

Like most other things Cherries are this year late. Usually picking is in full swing before June is out, but this year only a few consignments of the earliest varieties were sent to market before July. Though these generally were small and not very good they sold well, and at the time of writing the growers are hopeful that the main crop will do likewise. They have reason for this, not only on account of the scarcity, but when the fruit is thinly dispersed on the trees the cost of picking is much greater, on account of the time it takes to fill a basket and the continual shifting of the long ladders.

It may be that the readers of THE GARDEN are not all acquainted with the ins and outs of the Kentish Cherry industry, attached to which there is a certain amount of speculation. Only a portion of the growers gather and market the fruit themselves, as the Cherries in a large proportion of the orchards are sold on the trees by auction to the highest bidder, who afterwards gathers and markets the fruit, and pockets the profit or stands the loss, as the case may be. It will be readily understood then that considerable judgment is required on the part of the Cherry buyers; but, as a rule, these men know the capacities of the orchards they purchase, and can form a good idea both of the quantity of fruit and its approximate value. Sometimes they get out of their reckoning, however, and last season, when crops were heavy all round and there was a slump in Cherries, many dealers found themselves at the end of the season either quite on the wrong side of the ledger or with only sufficient to cover expenses, and no margin to pay for time, risk, and trouble. A few weeks before picking begins Cherry sales are the general order, and, in spite of half crops, some of the sellers have no reason to complain this year.

The well-known Sittingbourne district is admitted to be the best in Kent this year, and for some of the choice orchards high prices have been obtained. The fruit in some of these fetched as much as £33 per acre on the trees, whereas, in seasons of average crops, £20 per acre would be considered a good price. It will be admitted that £33 is not a bad return from an acre of ground, taking into consideration that the purchaser has to pay all the after expenses of picking and transit. Labour does not appear to be any too plentiful either, and I have heard several complaints of the scarcity of pickers, which may be accounted for to some extent by the fact that the Cherry and the Hay harvest come together, and each demands its supply of labour.

In Cherry-growing Kent a distinct air of activity shows itself when the first red fruits appear amongst the foliage on the trees. Long ladders, broad at the bottom and tapering upwards, are stacked in the orchards, great piles of round sieves appear under the trees, and when the first fruits are ready for market the business begins. A strict watch has to be kept on the fruit all along, for birds like Cherries. Birds are numerous this year, and some old growers take this as a good omen, in one respect, as they contend that both weather and fruit are good when the birds give the most trouble, and these points, of course, have bearing on the price. Birds play the greatest havoc amongst the fruit when the weather is hot and dry. As yet Cherry growers have found no magic of thwarting the birds, and firearms are chiefly resorted to for keeping them at bay. Occasionally one hears the rattle of old-fashioned clappers in the orchards, and bells are sometimes suspended in the trees, but the birds soon get accustomed to the sound. As for scarecrows, they seem to get on intimate terms with them at once, and nothing answers like the gun.

The Cherry tender has to be moving early in the morning, because the birds are feeding before half the world is awake, and through the whole day the man patrols the orchard, shooting more to frighten than to kill, and the bang of gunshots can be heard on every side till the twilight deepens into gloom.

Most of the Kentish Cherries are picked by women and girls, who, with baskets slung over

their backs, mount the long ladders with all the confidence of professional acrobats. At first sight it hardly looks to be the right sort of work for women, and many members of the gentle sex would hardly be induced to undertake such a task; but the Kentish female Cherry pickers are used to it, and the chatter and laughter in an orchard where a number of them are poised up in the trees proves that their nerves do not suffer, while accidents are of rare occurrence. The ladders, which are stout and strong, are fixed by the men, who move them as required, and this operation needs some care, as the ladders are heavy, and if not manipulated properly wholesale damage to the trees would result.

While the women are engaged in picking, the round market sieves are packed beneath the trees or in a marquee erected for the purpose, the paper covering is adjusted, and the receptacles are piled on the light drays, which convey them to the station. Here they are handled again one by one and packed into the vans, then rushed away, some to Covent Garden—the Mecca of all good produce—and some to the great manufacturing centres in the North.

Cherry time is truly an important one in Kent, and in this particular branch home competition is not feared, as the county holds the monopoly in the cultivation of this popular fruit. It is true there is only half a crop this year, but there is the possibility that it will put more money into the pockets of the growers than if every tree and branch were laden. This will ever be the case till the question of dealing with gluts of perishable fruit is solved.

G. H. H.

### PEACH ALEXANDER.

LOOKING through the early Peach house at Castle Hill, Bletchingley, on May 8, I noted a fine trained tree of Peach Alexander carrying a good crop of fruit. Some richly-coloured Peaches had already been gathered, and were of excellent character. I enquired of Mr. Barks as to whether he was at all troubled with the bud-dropping so freely ascribed to this variety. He said that no such trouble arose with his tree, and, if it were the nature of the variety to do as is so often said, the result must be due to insufficient watering. His practice is to water the border freely during the winter, and thus keep the roots moist and plump, then when the sap rises there is ample to sustain the buds, and none fall. Really he has to thin out his fruits on this tree materially each season. Heat is also applied at the first very gradually, an essential practice with early Peach forcing.

A. D.

## ORCHIDS.

### NOTES FROM THE WOODLANDS.

**V**ISITED at no matter what season of the year, the large and varied collection of Orchids owned by Mr. R. H. Measures is certain to contain in bloom one or more Orchids of more than general interest and value. Recently a most beautiful *Laelio-Cattleya* was seen by the writer—*Laelio-Cattleya Wiganiae* var. *lutescens*. The original form was obtained from *Laelio-Cattleya gottiana* crossed with *Cattleya Mossiae*, but the variety *lutescens* is either a remarkable colour variation or a fresh hybrid of which one of the parents—probably *L. C. gottiana*—must have had a strong yellow or buff suffusion in the sepals and petals. In any case the present form gains added beauty and distinction from a pleasing buff-yellow shade apparent in the corresponding segments, which are further flushed on the margins with rose. The labellum is beautifully frilled, palest at the extreme edge, darkest on

† "Flora Orientalis," Vol. IV., page 24.

§ "Prodromus Florae Colchicae," page 163.



the central area, these passing from a deep maroon shade to a dark purplish rose.

*Cattleya Harrisoniae* var. *Nulli secundus*.—For once exception cannot be taken to the varietal name applied here. It is very doubtful if so fine a form will ever be met with again. It is certainly the best of the violacea section yet seen, and is as remarkable for the size and perfect shape of the flowers as for their depth of glossy purple-red colour, heightened by the contrast of the white and creamy white fluted lip. Although introduced so far back as 1836, and frequently imported in quantity since that date, really remarkable varieties of this popular Orchid are seldom seen. Its easy culture, freedom of flowering, and usefulness of the type for cutting make this species largely grown, but though met with in nearly every garden it was not until quite recently that the pure white form was flowered.

*Lælio-Cattleya callistoglossa excelsa*.—This splendid form of callistoglossa was well shown at the Temple show of 1900 by Messrs. F. Sander and Co., who were then accorded a first-class certificate for it. The parents of the type are *Lælia purpurata* and *Cattleya Warscewiczii*, but in the above-named variety that form of *Warscewiczii*, known as *sanderiana* was the pollen parent. The result may be termed a glorified callistoglossa. The advantage of using the superior pollen parent is evident in the enlarged sepals and petals of tender rose—the petals beautifully waved and crimped—and in the huge lip, the apical portion of which is deep crimson-purple in colour, dashed with velvet-like maroon. The throat is of a soft yellow with a few darker lines, while the side lobes are of lilac-mauve, deepening to rose. It is in every way a most striking hybrid.

*Cypripedium Godefroyæ* and its variety *leucochilum* are largely grown at The Woodlands; in fact, that collection contains what are probably the finest known varieties of *C. Godefroyæ*, and though neither of them happened to be in flower on the occasion of my visit, many other grand varieties were well to the front. Whether natural hybrid or species, *C. Godefroyæ* is certainly the most polymorphic member of that section of the genus to which it belongs. Forms are here with both yellow and white grounds, and in both are flowers in which the lip is quite free from spotting. The varieties with white ground colour are justly considered the more beautiful, as, however deep and bold, the maroon markings do not show so clearly on the yellow shade as on the white. Their culture is not considered difficult, their main requirement, or, at any rate, the main one extended to them, being exceeding care in watering during the winter months.

Although Orchids are the feature in Mr. Measures' garden, it must not be imagined that other branches of horticulture are neglected. The Carnation houses present a veritable picture at the present time, and many superb new kinds are in flower. One—Carnation Maggie Hodgson—would certainly become largely grown should it ever get into the hands of the trade. Its large shapely flowers are freely produced, and the colour—a dark claret purple—is both novel and beautiful. Many other interesting plants are also in flower, but want of space prevents any mention of them.

ARGUTUS.

## NURSERY GARDENS.

### PLANTS AT THE QUEEN'S ROAD NURSERY, CHELTENHAM.

HAVING lately had an opportunity of calling at this nursery, and remembering the many excellent plants displayed at exhibitions from this establishment, I naturally expected a floral treat, and it is almost needless to remark that this wish was amply gratified. A large and freely-flowered collection of that grand old species *Lælia purpurata*, in many fine varieties, possessed of large pseudo-bulbs and dark foliage, was making a gorgeous display. Noticeable were *L. p. Williamsii* and *L. p. magnifica*. All

#### THE BEST CATTLEYAS

are likewise grown in great quantities, and of these many grand things have been selected from importations. Some good forms of *C. Mossiae* were observed, together with a magnificent variety of *C. Mendelii*, arranged with many others of this species. *C. Skinneri*, the first of the genus that I

us to know that even here the old type of *C. insignis* is not despised, and that a great quantity of its best forms and the best of its seedlings are grown. With these, growing and flowering in a cool house were some good varieties of *C. Exul* and *C. villosum*. Of kinds in flower that require a warmer temperature, there was a collection of splendid forms of *C. lawrenceanum*, possessed of many large bold flowers. The beautiful *C. Gowerii magnificum*, *C. grande*, *C. grande atratum*, with a magnificent variety of *C. rothschildianum*, the delicate looking *C. niveum*, and many others. All the best

#### MASDEVALLIAS

are largely represented. Many were the kinds in bloom, *M. veitchiana grandiflora*, *M. Lindeni*, and *M. harryana* being most brilliant and effective. Of others, *M. Chimæra*, *M. Roezlii*, *M. bella*, *M. Shuttleworthii*, and a large batch of that pretty little white species *M. towarensis* were freely flowering.

#### ODONTOGLOSSUMS

fill several houses, two of them being entirely occupied by *O. crispum*, in rude health, possessed



GROUP OF WHITE LÆLIA ANCEPS IN MESSRS. CYPHER'S NURSERY AT CHELTENHAM.

remember seeing, is still distinct and valued, and was represented by good specimens, *C. S. oculata*, a very bright variety, being one of them. Some plants of that charming *C. schilleriana*, together with a large quantity of *C. citrina*, with remarkably large flowers, were very bright. Mr. Cypher's nursery is especially celebrated for its collection of

#### DENDROBIUMS,

and deservedly so, for this is both large and complete. Of *D. nobile* and varieties alone several houses are filled. Their season of flowering is, however, almost over, but several plants of large flowering distinct dark forms, *D. n. nobiliss*, as well as the rare and chaste *D. n. virginalis*, the beautiful white flowers of which are most delicately scented, were still in bloom. These late flowering forms of *D. nobile* are greatly valued by Mr. Cypher, both for cutting and other purposes. Amongst other species a large specimen of *D. Farmeri* was densely clothed with its beautiful drooping flower.

#### CYPRIPEDIUMS

are now to be met with almost everywhere, but not always in such rude health as at Cheltenham, nor in such quantity, and it is pleasant to some of

of large pseudo-bulbs and healthy foliage. Many exceedingly fine varieties of this beautiful species were flowering well. Good kinds of *O. Hallii*, *O. hystris*, *O. polyanthum*, *O. anderssonianum*, *O. ruckerianum*, &c., were also flowering freely. *Miltonia vexillaria* is grown to perfection in great quantities, and many of the plants were furnished with unusually large spikes of flowers in many shades of colour. It is astonishing how cheaply this grand Orchid can now be purchased as compared with its price soon after it was introduced. It seems but a very short time since I had charge of a small plant of it with one lead, which cost 21 guineas, and if I remember rightly a similar remark might be made about *Masdevallia harryana*.

#### ONCIDIUMS

were another feature, and grand spikes of *O. macranthum*, *O. marshallianum*, *O. Rogersii*, and *O. varicosum* were noted, with a greater number of *O. concolor*. Of *Thunias*, *T. marshalliana* and *veitchiana* were already in flower, as well as a few of *T. winniana*, the best of all dark ones. Some plants, with fine pseudo-bulbs, of *Brassavola*



digbyana were carrying their solitary, beautifully fringed and scented flowers. Some

EPIDENDRUMS AND SOPHRONITIS, with their offspring Epiphronitis Veitchii, were also freely blooming. Their bright flowers are very effective.

In these notes no attempt has been made to give anything like a complete list, to say nothing of describing the beauties of the valuable and choice Orchids this noted nursery contains. I would advise those who have not done so, and are interested in these plants, to visit the Cheltenham establishment, and see for themselves the great quantities of healthy, clean, and in every way splendidly cultivated Orchids. T. COOMBER.

### FROM THE MOUNTAINS.—I.

A DEEP, narrow valley with high mountain sides, a good way south, a little east of Geneva, and about a third of the same distance north of the Mont Cenis. The valley sides are in places inaccessible, and are, for the most part, where the rock is not sheer, wooded with scrub of Ash and Hornbeam, Hazel and Maple. At the bottom is a rushing torrent fed by the glaciers not far to the south. But in many places the valley widens a little, allowing space for vineyards and pastures. How rich these steep blunt spurs of pasture are with their groves of Walnuts and fruit trees and more open meadow spaces, and how delightful these are with their wealth of flowers and their lovely rippling and tumbling rills! Here is such a one running merrily down its steep descent over big stones and between boulders, with a little cascade at every few feet of its flow and its charming music of rush and ripple and gurgle. It flows on and tips over its little falls with an air of brisk cheerfulness as if it had no apprehension of what awaited it a hundred yards below, where it will be dashed about in the rocky rapids of the roaring torrent. What would one not give for such a little mountain stream in one's garden! What visions it suggests of beautiful rill and bog gardening!

From the stream on both sides rise the steep banks of flowery pasture. However often these alpine pastures may have been described, their beauty is ever fresh and new to see. Here it is scarcely alpine in the usual sense, for the altitude is barely 2,000 feet; the brilliant sheets of tufted vegetation—the region of the Gentians—lie higher. The meadow flowers grow rank and luscious, but such is the wealth of blossom that the whole surface, seen at a little distance, shows clouds and drifts of colour, mostly of pink and rose and purple; strongest purple of the meadow Salvia, paler colouring of Scabious, rose and pink of the ever-present and always beautiful Saintfoin. On the chalk lands at home the colour of Saintfoin is a good pink with deeper veining; here the colour is generally fuller, with a good proportion of the bloom of a grand rose colour of the best and liveliest quality, deepening to a strong crimson of rosy scarlet quality in the yet unopened bud. The Scabious flowers are very large and mostly of the usual lilac colour, but some are very lilac and some a fine purple, nearly matching the Salvia. The Salvia is very near our own wild Sage

(Salvia Verbenaca), perhaps the same thing, but in these meadows it has the appearance of a much better plant, especially when it takes a densely bloomed, rather bushy form. The colour is so rich and the whole plant so good that one wonders that it has not before now been tamed to garden use. It seeds freely, and one would think that selections from well-chosen wild forms would soon give good garden plants. The good size of the flowers in the whorls and the extreme richness of their colour, fine in itself, and much enhanced by the dark harmonious tinting of the calyx and the deep velvet-purple of the bud, point to a flower that should have a garden future, especially on chalky soils.

Other showy flowers of these rich meadow gardens are Cranesbills, Campanulas, Cow-wheat, Bedstraw, Clovers, Lotus, and Anthyllis. Colchicum is in large green leaf and seed-pod. All these meadow flowers are taller and larger and in more abundant bloom than we ever see at home, only excepting the Ox-eye Daisies, which are smaller than ours. G. J.

### MISCELLANEOUS.

#### NOTES FROM ENGLISH GARDENS.

##### TRENT PARK.

LOVERS of Carnations would much appreciate the floral treat afforded the writer during a hurried visit to Trent Park, the home of F. A. Bevan, Esq. At the present time two large houses are completely filled with Malmaison Carnations in flower and bud. The number of varieties seems endless, yet much care has been exercised in their selection, while cultivated skill of the highest has so perfected each plant that not a single poor bloom could be detected. The colour ranges from a soft pink, almost white, flesh shade to deep rose and better size, contour, and substance on the blossoms could not be wished for. All the best varieties known have been collected at Trent Park, and the result is apparent in this splendid collection of Malmaisons.

##### DIPLADENIAS.

Two well-grown and profusely-flowered plants of this handsome genus were just at their best in the stove. The one, *D. Hamabilis*, is well known, but beautiful as its soft rose-crimson blossoms are, they are eclipsed by those of its companion, *D. brearleyana*. It is doubtful if any of the cultivated Dipladenias equal this supposed hybrid in beauty and in the abundance with which the large deep rose-crimson blossoms are produced. Horticulture owes this splendid acquisition to Mr. Simon Brearley, of Halifax, Yorkshire, a working man, not even a gardener, but simply a mill hand who made a hobby of horticulture. One morning the post brought to the late Mr. William Bull, of Chelsea, a box filled with blooms of this magnificent flowering plant, and Mr. Godseff, then manager to Mr. Bull, was at once sent to Halifax to purchase the plant—there was but one. He finally acquired it for 150 guineas, cash on delivery, the free delivery of the plant at Chelsea in good condition being an absolute condition in the bargain. So highly did its raiser value the plant that he would not even accept pounds for cash, but insisted on guineas. The cash so unexpectedly



PART OF A SPIKE OF THE ALPINE MEADOW SAGE.

and easily obtained unfortunately did Brearley but little good, tempting him to extra carousals, and a short time after its acquisition, in one of his escapades, it was said he had the misfortune to break his leg. Among the

##### ORCHIDS

at Trent Park are some really grand specimens of Sobralias. Conspicuous particularly are huge plants of *Sobralia macrantha* nana, Wade's old variety, the characteristic short growths of which crowned with very large flowers, better than in the type, are admirably set off by the taller growths of such kinds as *S. xantholeuca*, *S. leucoxantha*, &c. Among specimen Orchids at Trent Park claiming attention is a colossal plant of *Cœlogyne dayana*, larger than the famous plants shown so frequently by Baron Schröder at the Temple shows. The long pendulous spikes bear numerous substantial blooms, straw-yellow, white, and dark chocolate in colour, not gorgeous, but very attractive, their number



and the graceful manner in which they are produced compensating for the absence of brighter tints. The plant is certainly the finest specimen in cultivation, carrying nearly 100 spikes.

There is much that is interesting and worthy of attention at Trent Park. Although he has held the appointment but a short time, Mr. Parr, the able head gardener, has already made great improvements, and as the owner is an enthusiastic lover of gardening—a liberal patron and a good master—in the near future still further advances may be expected.

GUNNERSBURY PARK.

A VISIT to Gunnersbury Park, no matter at what season of the year, is never without interest. Just now one of the most charming sights, both from a utilitarian and artistic point of view, is a lean-to house filled with fruiting cherry trees. The uses of the first will commend themselves to every reader, particularly during hot weather, but looking at a house such as this at Gunnersbury, one almost loses sight of the primary cause of their culture in admiration at the charming sight they present. The trees are trained under the roof, and from bottom to top are covered with clean healthy foliage. The branches are laden with ripe fruit in glossy shades of black, yellow, rose-red, cerise and white, contrasting with the luxuriant green foliage: a prettier effect it is difficult to conceive.

BEGONIA CORALLINA.

A remarkable plant of this handsome species shows to full advantage, covering the roof of a moderately warm house and bearing hundreds of its brilliant coral-red flowers in drooping panicles. It is a pity greater use is not made of this Begonia. Apart from the size and beauty of the flowers, it is most accommodating as regards temperature, and is very free blooming. If grown in too cool a temperature it is certainly apt to lose its lower leaves quickly, but given a house which falls but little below 60° Fahr., and room to develop its lateral branches, it takes a prominent place among flowering plants and is practically always in bloom.

A hurried inspection of the Orchid houses shows that Mr. Reynolds as thoroughly understands their culture as he does the other branches of gardening.

Odontoglossums, of which a considerable quantity is grown, simply luxuriate. Last year they were potted in Belgian leaf soil, and so satisfied is Mr. Reynolds with the progress they have made that he is extending the use of this material to Lycastes, Cattleyas, &c. Since being potted in the leaf soil, the growth made by the Odontoglossum is twice as good as that made during any previous season, and nearly double the growing room will be required at potting-time (August) this year for the accommodation of these plants.

THE USE OF HARDY CLIMBING SHRUBS.

THE best and best known of our good hardy climbing shrubs are by no means neglected, but yet they are not nearly as much or as well used as they might be. Such a fine thing as the easily grown Clematis montana will not only cover house and garden walls with its sheets of lovely bloom,

but it is willing to grow in wilder ways among trees and shrubs—where its natural way of making graceful garlands and hanging ropes of bloom show its truest and best uses much better than when it is trained straight along the joints of walls or tied in more stiffly and closely. Even if there are only a few stiff bushes such as Gorse or low Thorns to support and guide it, it gladly covers them just as does the Traveller's Joy (Clematis Vitalba) of our chalkland hedges. This also is a climber that, though a native plant and very common in calcareous soils, is worthy of a place in any garden. Clematis Flammula is another of the family that should be more often treated in a free way, and grown partly trained through the branches of a Yew or an Ilex. The less-known Clematis graveolens, with yellow flowers and feathery seeds, and the fine October-blooming C. paniculata, make up five members of one family, apart from the large-flowered Clematises, that all lend themselves willingly to this class of pictorial treatment.

One of the most important of our climbing shrubs, the Wistaria, makes grand growth in all the south of England. This also can be used to excellent effect trained into some rather thinly-furnished tree such as an old Acacia. Its grey snake-like stems and masses of bloom high up in the supporting tree are shown to excellent effect. This is also a fine plant for a pergola. A few plants growing free and rambling full length would, after the first few years, when they are getting hold, cover a pergola from end to end. The piers or posts could also be covered with the same, for though the nature of the plant is to ramble, yet if kept to one stem and closely pruned it readily adapts itself to pillar form and bears a wonderful quantity of bloom.

Among the Grape Vines there is a great variety of ways of use other than the stiff wall-training they generally receive. If they are wanted for fruit they must be pruned, but most outdoor Vines are grown for the beauty

of their foliage. Here is another first-class pergola plant, making dense leafy shade, and growing in a way that is delightfully pictorial. Nothing looks better rambling over old buildings. Now that so many once prosperous farms are farms no longer, and that their dwelling-houses are being converted to the use of another class of occupier, the rough out-buildings, turned into stabling, and adapted for garden sheds, often about upon the new-made pleasure garden. This is the place where the Vines may be so well planted. If the main stem only is trained or guided it is well to leave the long branches to shift for themselves, for they will ramble and dispose themselves in so pictorial a way that the whole garden is bettered by their rioting grandeur of leaf mass.

Aristolochia Siphio, with its twining stems and handsome leaves will, like the Vine and the Virginia Creeper, answer to all these uses of jungle-like growth among trees and shrubs and free climbing in hedge, over pergola or rough building.

The employment of the climbing and rambling Roses is also now understood for all such uses, and the illustration shows the value of the Dutch Honeysuckle for this purpose.

A rough hedge containing perhaps only a few Thorns and Hollies and stub Oaks, and a filling of wild Brambles, may be made glorious with the free hardy climbers just guided into the bushes and then left to ramble as they will.

GARDENING OF THE WEEK.

KITCHEN GARDEN.

COLEWORTS.

ANOTHER good sowing of both Rosette Colewort and London Hardy Green should be made at once. These will stand the winter much better than the early sowings, and give useful supplies during early spring when Cabbage is often very scarce. Take every opportunity of showery weather to plant all kinds of green



DUTCH HONEYSUCKLE ON WALL. (From a photograph by Miss Willmott.)



vegetables intended for winter use, and every available piece of vacant ground should be filled. Walcheren and Magnum Bonum Cauliflowers should be planted on a south border, well manured and deeply dug, 2 feet between the rows, and 18 inches from plant to plant. These will give useful little heads generally so much appreciated for the table.

#### TURNIPS.

Three good sowings should be made during the month, consisting of Snowball and Red Globe. Make the ground firm and rake down finely. Thin out those previously sown as soon as they have made the rough leaf; dust over with soot and wood ashes frequently in early morning while the dew is on them, and those that have attained a medium size should be pulled and stored under a north wall in sand or cinder ashes, when they will keep fresh for some time.

#### TOMATOES

planted in the open will continually require thinning and training, exposing the young fruit to the sun and air as much as possible. The plants should be grown on the cordon system, and no manure given till a sufficient crop is swelling.

#### PLANTS UNDER GLASS

should have abundance of air at all stages, especially those setting and ripening their fruits. All carrying heavy crops in pots should be liberally fed both by top-dressing with well-rotted manure and applying patent and farmyard liquid. During hot drying days the stages, paths, &c., should be damped down several times during the day, but endeavour to prevent a stagnant atmosphere, otherwise, a spell of dull weather set in, disease in the foliage will make its appearance. This will not only cause great check to the plants, but make them very unsightly. The little white fly which often attacks them if allowed to go unchecked will multiply and spread with great rapidity, and does more damage to the growth of the plant than many people imagine. Only by persistently fumigating the house for several nights in succession can it be eradicated. The first one or two doses simply stupefies them, they fall to the ground, and in about twenty-four hours are as lively as ever.

To ensure good strong sturdy plants before late autumn another sowing should at once be made for producing a supply through the winter, as the more robust the plants are when placed in their winter quarters the better will be the results. Sutton's Winter Beauty and Earliest of All are excellent varieties for sowing now, both being very free setters, and the first-named handsome in appearance.

#### WINTER ONIONS.

All the white Tripoli kinds will have finished their growth and should be pulled up and laid in the full sun to ripen. These are never good keepers, especially when left in the ground too long, but many appreciate them on account of their mild flavour. Other autumn-sown varieties, such as Lemon Rocca and Red Tripoli, may still be fed liberally with both manure and clear water, and in hot weather thorough drenchings overhead during late afternoon will greatly assist large heavy bulbs to develop.

#### PARSLEY.

The earliest batches of this are now growing away freely; the surface soil should be kept constantly stirred, and small dustings of soot applied during showery weather. Make yet another good sowing on deeply tilled ground on a south border.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

#### ORCHIDS.

##### SOBRAlias.

THESE form a genus of terrestrial evergreen ornamental Orchids, with reed-like stems, furnished with plaited sheathing leaves. The flowers of many of the species are large, some being 6 inches or more across. The most attractive feature of the flower is the wonderful lip, this sometimes being

3 inches broad. The flowers are produced from the top of the stems and vary in duration, but in the majority of the species as one flower decays another becomes apparent, six or more being produced in succession. Numerous species are included in this genus, the following being among the most beautiful: *S. macrantha*, *S. xantholeuca*, *S. leucoxantha*, *S. veitchiana*, *S. lucasiana*, *S. wilsoniana*, *S. sanderiana*, *S. virginalis*, and *S. Sanderæ*. Most of the species have thick fleshy roots, and being freely produced, the pots should be ample in size, and the compost consist of rough fibrous loam and peat in equal parts, with an addition of coarse sand, or finely broken crocks, or charcoal, incorporated so as to ensure porosity. Drainage must also be ample, as an abundance of water is needed during the growing season, and at no time should they become slightly dry at the root, except when they are resting and during the dull winter months. They should be grown in a shaded position at the cooler part of the Cattleya house.

##### DENDROBIUM PHALÉNOPSIS SCHRODERIANUM.

This beautiful and showy *Dendrobium* is one of the most useful for exhibition. The flowers are produced, fifteen or more in number, from the apex of the newly-made pseudo-bulb, and are 2½ inches or more across; they vary considerably in colour, some being almost white, others of brilliant hues. As these plants bloom in the autumn months the earlier they produce their flowers the better, especially if grown in smoky centres or near large towns. Being delicate they are unable to withstand smoke and fogs which prevail at that season, and so quickly destroy the buds and blooms. As the young growths advance and the plants become well rooted they should have every encouragement to develop their pseudo-bulbs as early as possible by keeping a high temperature, an abundance of moisture both at the root and in the atmosphere, and spraying the plants overhead twice or three times daily. The young growths should be examined at intervals and the house fumigated should thrip be present. The plants, though lovers of sunlight, should not be exposed to our hot summer sun too long, the thin shading used should be lowered by 8 a.m. and removed by 4 p.m., earlier or later according to the aspect of the house.

##### DENDROBIUM DEAKEI AND D. REVOLUTUM.

The former is a handsome species, the flowers produced in cluster-like racemes from near the apex of the bulbs; they are pure white with a green centre to the lip. The latter is a very pretty and distinct species, the flowers but little resembling those of a *Dendrobium*, the sepals and petals are white, the lower sepals being united and forming a sort of spur at back of flower. The lip is yellow with numerous reddish brown lines near the base, three running down the centre of the lip. Both species thrive well in a shady part of the stove or with the warm growing *Cypripediums*. They have been in bloom for a considerable time, and when the flowers are taken from them and growth again begins they should be repotted if necessary in a compost of equal proportions of peat and sphagnum moss.

##### DENDROBIUM SANGUINOLENTUM.

This is a distinct and beautiful evergreen species, producing flowers in clusters from near the tops of the old pseudo-bulbs, which grow from 3 feet to 5 feet high, and continue to bloom for years; the flowers are more than an inch across, the sepals and petals fawn colour, tipped with rich purple, lip of a paler colour tipped with rich purple, having a bright orange blotch in the centre. This grows here freely with the general collection of *Dendrobiums* but in a more shaded position, it does not require the cool dry rest like many others of the genus, but should be kept in a moderately warm and moist house throughout the year. When growth begins repot if necessary, using equal parts of peat and moss. They frequently produce young plants upon the upper parts of the old bulbs, which should be taken off and potted up in the usual way.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, N.

## INDOOR GARDEN.

### MALMAISON CARNATIONS.

ANY of these plants past their flowering period should be layered; the sooner the layers are rooted the earlier they will flower next season. Plunge the plants in a frame in an open porous compost of loam and leaf-soil, with a free admixture of fine charcoal and coarse silver sand. The growth nearest the base of the stem should be layered, thinning out the weaker growths if not required for stock. Strip the lower leaves away from the plants, and with a sharp knife cut through a joint and peg the layer into the soil at the incision, press the compost firmly round each layer. They must be shaded from bright sunshine, and great care is necessary in applying water to them. Until roots have been freely made keep them free from all insect pests. Border Carnations for pots may be treated in a similar way.

### TREE CARNATIONS FOR WINTER FLOWERING

that have filled their flowering pots with roots should have a little weak manure and soot water to assist their growth. Great care must be exercised in watering these Carnations at this season, as if the plants get thoroughly dry the roots will suffer. I believe there are more failures from insufficient water than from the reverse. Freely syringe in the morning and again in the evening on bright days, using a little soot in the water, which helps to keep insect pests in check, and will greatly benefit the growth.

### GLOXINIAS.

The early batches that are going out of flower will require little moisture at the roots and should be gradually ripened off. Later batches coming into flower should be placed in a dry atmosphere and the manure water discontinued. Seedlings for later flowering should be shifted into larger-sized pots as they require it. With liberal treatment they will make a good display in the autumn. Do not syringe the plants overhead, but give a moist atmosphere with a fair amount of shade.

### POINSETTIAS.

The earliest rooted of these will be making satisfactory progress, and every encouragement should be given to promote a free growth. As the pots become full of roots the plants should be potted up, using a soil of two parts fibry loam, one of leaf-soil, and the remaining part dried horse manure and sand. Keep the plants near the glass and do not over-shade. Another batch of cuttings should be put in. These are most useful for decoration, and may be grown successfully in 3-inch pots if kept liberally supplied with liquid manure when well rooted.

### EUPHORBIA JACQUIN-ELORA.

When well grown this is useful for house decoration during winter, and every care should be taken to get a stout well-matured growth.

### CLERODENDRON FALLAX.

This is now making rapid progress, and judicious feeding will have to be resorted to. Keep the plants in a warm moist atmosphere and supply plenty of moisture at the root or they will be liable to the attacks of red spider and thrip, which will soon disfigure the foliage.

Wexham Park Gardens, Slough.

## THE FLOWER GARDEN.

INTERESTING and beautiful plants at present much in evidence in the herbaceous border are the

### CAMPANULAS.

Their form and colour are so much diversified that they can be used freely in any border without fear of monotony. Not the least beautiful and useful of the Campanulas are the different varieties of the Canterbury Bell, though, unfortunately, the period of blooming is very short; if, however, pains are taken to go over the plants when the flowers are past and remove the seed-pods a new flowering season will be secured three or four weeks later. The Canterbury Bell requires treating as a biennial, and should have been sown earlier in the year; but nearly all the perennial ones may be sown now either in boxes or in the open ground.



As is usual at Richmond the non-competing groups were good, as well as large and numerous, the majority being contributed by local nursermen. Foremost among these was a group of much interest from Mr. John Russell, whose display of hardy shrubs, conifers, and evergreens, was very pleasingly arranged. From a large number of things we selected *Dimorphanthus Mandschuriensis* fol. argentea marginata, not merely for a most unwieldy title, but for its



picturesque Aralia-like habit of growth. In another tent the same firm set forth a telling array of stove and greenhouse plants in such a way that made it clear Mr. Russell is quite as good in the cultivation of tender subjects as in hardy kinds. A silver-gilt medal was awarded.

Mr. W. Thompson, Sheen Nurseries, Richmond, also had a fine group. Silver-gilt medal. Another excellent group of a local nature came from Mr. W. Fromow, Chiswick, whose array of Acers in their many tints made a most agreeable and pleasing study in these plants. Silver medal.

Not the least among the non-competing groups was that of Roses from Messrs. James Veitch and Sons, Limited, Chelsea, and elsewhere. Indeed, it was not merely a fine group, it was a formidable one, revealing to all what could be done with pot Roses. There were upwards of 200 plants, and these largely were contained in 9-inch pots, and being finely flowered made a grand display as a whole, the plants throughout being naturally grown, well flowered, and very encouraging. We do not pretend to mention one-half the varieties shown, but among the more conspicuous were Mrs. J. Laing, Caroline Testout, General Jacqueminot, Jennie Dickson, Victor Hugo, Thos. Mills, La France, Earl Dufferin, Perle des Jardins, &c. Gardenia, a semi-double kind, is very beautiful, the soft yellow buds presently revealing a nearly snow-white flower of good size. The variety is very free and of climbing habit. Silver-gilt medal.

In the forefront of one large tent, Sir F. Wigan, Bart., Clare Lawn, East Sheen (gardener, Mr. W. H. Young), staged a fine lot of Orchids in bloom, among which we noticed many good Cattleyas of the Mossie and gigas forms, together with other rare hybrids and varieties. Silver-gilt medal.

Messrs. Peed and Sons of Norwood received a silver medal for a group of Gloxinias of a capital strain, in which C. Young, a velvet-crimson; Countess of Warwick, pink; Boule de Neige; Mrs. G. W. Sanday, white; and Mrs. W. Weaver, pink spotted, were of the best. Flowers of a good strain of Begonias were also set up.

Hardy plants found such well-known firms as Messrs. T. S. Ware and Barr and Sons displaying them to advantage, the former bringing large numbers of Campanulas, Delphiniums, Early Phloxes, Lupinus arboreus, Calochorti, such Lychnis as haageana and L. vespertina plena, some beautiful Liliiums, and handsome cut specimens of Romneya Coulteri, pure white flowers, 6 inches across, being very much admired. Some pretty masses of alpinus in pans included Thymus montana alba and T. coccinea, and the very beautiful asperula hirta, dainty and pleasing to a degree. Begonia Bavaria is the dwarfest and most free-flowering bedding Begonia we have seen; it is barely 6 inches high, a mass of scarlet-crimson flowers. Silver medal.

Messrs. Barr had in their lot many fine English bulbous Irises, Poppies in variety, quite a colony of their showy Peonies and Delphiniums, Potentillas, Lychnis haageana, Gillenia trifoliata, a fine display of the early Gladiolus Blushing Bride and Early Moon, several pretty Heucheras, the showy Inula glandulosa, with intense golden flower heads, and the huge grotesque spathe of Arum Draunculacul were among the more striking in a very fine lot of flowering things. Silver medal.

#### COMPETING GROUPS.

Great pressure upon our space precludes the hope of a detailed report, and we therefore take some of the more important features, as e.g., the large Rose class and some others.

The principal Rose class was for forty-eight Roses, distinct, three blooms of each—144 blooms—a large and imposing array for a single exhibitor. The first prize, which this year was easily won by Messrs. F. Cant and Co., Colchester, is the Gunnersbury Park cup, to be held by the winner for one year. There were also prizes in money attached to the three best sets of blooms. There were but two competitors, however, the Messrs. Cant's flowers being of excellent quality throughout. We take the following as among the best blooms: Margaret Dickson, A. K. Williams, Mrs. Cocker, Victor Hugo, Prince Arthur, Marie Baumann, Captain Hayward, Ulster, Gladys Barkness, Marchioness of Downshire, Bessie Brown, Mrs. J. Laing (very fine), Comtesse de Ludre, Vicomtesse Polkestone, Souv. S. A. Prince, Helen Keller, Rev. Allen Cheales, Mme. A. Chatenay, Fisher Holmes, Zavier Olibo, Mrs. F. Cant, Mrs. Sharmar Crawford, &c., a really fine lot, and particularly so for the season. Messrs. D. Prior and Sons, also of Colchester, took the second prize in this important class.

Messrs. F. Cant also took first prize for a dozen blooms of one variety, showing Mrs. J. Laing in superb fashion; indeed, there was no weak or faulty bloom in the lot. Messrs. Prior came second with Marchioness of Downshire.

The premier classes for vegetables and fruit were also of much interest, and not a few were surprised in the special class for vegetables provided by Messrs. Carter and Co. to see Mr. E. Beckett, Lord Aldenham's well-known gardener, in the second place. The first prize was awarded to R. W. Hudson, Esq., Danesfield, Marlow (gardener, Mr. J. Gibson). His collection of nine kinds was as near perfection as possible, and many leading gardeners frankly admitted they had never seen finer produce. Pea Duke of Albany was a magnificent sample, and such perfect bloom on the pods. Lord Aldenham, Elstree (gardener, Mr. E. Beckett), was second with a good selection.

In the collection for twelve kinds of vegetables Lord Aldenham was first, with Colonel Bosworth second.

For six dishes of fruit in the special division G. C. Raphael, Esq., of Englefield Green (gardener, Mr. H. H. Brown), was first, having Royal Sovereign Strawberry, Melon Hero of Lockinge, with Foster Seedling and Black Hamburgh Grapes; Hon. Mr. Justice, Otlands Lodge, Weybridge (James Locke, gardener), being a good second.

For three bunches black Grapes (Madresfield Court) was shown by Earl Onslow (Mr. W. Black, gardener), who was first, with W. E. Wells, Esq., Hounslow, second, with Black Hamburgh.

For three bunches white Grapes, the Hon. Mr. Justice

was first with Foster's Seedling, L. G. Baker, Esq., Chertsey, being second.

For a group of plants arranged for effect in a space not to exceed 100 square feet, Mr. H. E. Fordham, of Twickenham, was the only exhibitor, having a capital group.

For a bouquet for the hand, Mr. Wm. Hayward, Kingston, was first; Miss Cole, Feltham, was second.

For six exotic Orchids, Sir Frederick Wigan, East Sheen, was first.

There were many classes for floral and other arrangements in baskets, &c., but in these we saw nothing novel or distinct that would be likely to interest our readers generally.

#### SOUTHAMPTON.

THE annual summer show was held on the 1st and 2nd inst., in the pavilion on the pier, and was a success.

#### PLANTS.

These were numerous and good. For four specimens Mr. T. Hall, gardener to Sir Samuel Montagu, Bart., South Stoneham House, Southampton, was first, staging good Crotons and a nicely flowered plant *Ixora Williamsii*. Groups of miscellaneous plants were arranged down the centre on the floor, and very pretty they looked, possessing, as they did, much taste in arrangement.

Mr. E. Wills, The Nurseries, Winchester Road, Shirley, secured the leading award with an exhibit that left little to be desired; Mr. Hall was second.

Messrs. Hooley Bros. had a good exhibit of Orchids in the class set apart for them arranged for effect. Cattleya Warneri, C. Harrisonii violacea, with Odontoglossums in variety made up an imposing display.

Ferns were shown in quantity. Mr. F. M. Vokes, Birch Lawn, Sholing, won for four specimens with healthy examples; Mr. F. Cozens, Rowenhams, was second.

#### ROSES.

The principal class was that for thirty-six distinct varieties. Mr. G. Prince, Longworth, Berks, secured the leading award with medium-sized, highly-coloured examples of such varieties as Horace Vernet, Bessie Brown, La France, Bridesmaid, Souvenir d'Elise Vardon, Marquise Litta, Mrs. J. Laing, and Marchioness Dufferin; Messrs. D. Prior and Sons, Colchester, were second, with Messrs. Rogers and Sons, Bassett Nursery, Southampton, third.

For twelve triplets Mr. Prince was again successful, staging such varieties as Marie Van Houtte, Maman Cochet, The Bride, Souvenir d'un Ami, Comtesse de Nadaillac, Souvenir de F. A. Prince, and Princess of Wales; Messrs. D. Prior and Sons were again second prize winners.

For twelve Teas there was a strong display of even, good examples. Mr. Prince again securing the leading award—Mrs. E. Mawley, The Bride, Catherine Mermet, and Maman Cochet were noteworthy examples; Messrs. Prior second; Messrs. Rogers third.

Marquis de Litta won for Mr. G. W. Kent, gardener to Mrs. C. Croft Murray, Perivale, Ryde, I.W., the premier award in the class for six blooms any one dark variety.

Gardeners and amateurs had several classes set apart for them. For eighteen distinct, Mr. Kent was the most successful, winning with fully representative examples of A. K. Williams, La France, Helen Keller, and Susannah Marie de Rodocanachi; Mr. W. Nevill, gardener to F. W. Flight, Esq., Corstulites, Twyford, Winchester, was a good second.

Tea or Noisette varieties were well shown by Mr. Neville, Anna Oliver, The Bride, Niphetos, Catherine Mermet, Mrs. E. Mawley, and Marie Van Houtte were some of the best in an even stand, Mr. Kent following closely, with Dr. D. Seaton a good third.

Roses arranged in a basket made a pretty feature. Miss Snellgrove, Oxford Road, Southampton, won distinctly with a superior exhibit.

For the best decorated vase or epergne, Miss Wadmore, Brook House, Basingstoke, secured the leading award with one of her characteristic displays, which at all times commands attention.

Bridal and ball bouquets were contributed by Mr. F. Bailey, florist, Southampton, and Mr. E. Wills, the prizes going in the order here given.

Hardy border flowers were magnificently displayed. For twelve bunches, distinct, Mr. B. Ladham, The Nurseries, Shirley, Southampton, were easily first with a grand lot. Such plants as the following were well represented: *Dictamnus fraxinella*, *Geum atrosanguineum* plenum, *Betonica superba*, *Iris gigantea*, *Ceropegia Eldorado*, *Spirea aruncus*, *Delphinium Navy Blue*, *Gaillardia maxima*, *Campanula persicifolia gigantea*, C. p. Porcelain, *Dianthus abbotfordiana*, and *Heuchera splendens*; Mr. Hall was second.

Sweet Peas were well staged. For nine bunches distinct Mr. Vokes won with huge blossoms of popular varieties.

Vegetables were contributed in quantity, while the quality left little to be desired. In the class for six varieties, for which Messrs. Toogood gave the prizes, there were five entries. Mr. E. Beckett, gardener to Lord Aldenham, Aldenham House, Elstree, secured the leading award with Toogood's Wonderful Tomato, Southampton Wonder Potato, Walcheren Cauliflower, and White Leviathan Onion; Mr. Davies, gardener to Lord Aberdare, Longwood House, Winchester, a good second; Mr. Bowerman, gardener to Lord Bolton, Hackwood Park, third. In a similar class, in which Messrs. Sutton, seedsmen, Reading, provided the prizes, no less than seven competed, making a fine display. Mr. Gibson, gardener to R. W. Hudson, Esq., Danesfield, Marlow, was first with exceedingly fine examples for the season of such as Supreme Potato, Magnum Bonum Cauliflower, Perfection Tomato, Duke of Albany Pea, New Red Intermediate Carrot, and White Leviathan Onion. Mr. Beckett followed closely with produce of a high quality.

#### TRADE EXHIBITS.

Mr. Ladham, Shirley, Southampton, arranged an extensive group of herbaceous plants, consisting of at least six dozen bunches of border Pinks, for which he is famous. Such plants also as Gaillardias, Delphiniums, Spiraeas, Lilies, Iris, and Peonies were characteristically displayed.

Messrs. Dobbie and Son, Rothesay, were worthily repre-

sented with a huge collection of Sweet Peas, Violas, and Pansies, which added much to the interest of the show.

Messrs. Toogood and Sons, Southampton, had hardy cut flowers in great variety.

Messrs. W. H. Rogers and Son, Southampton, Roses in pots, shrubs, and hardy flowers generally.

Mr. Newton, gardener to W. Garton, Esq., Roselands, Woolston, staged an excellent group of Carnations, Gloxinias, Pelargoniums, Crotons, and Ferns, which made an imposing display.

#### THE NATIONAL ROSE SOCIETY'S SHOW AT EXETER.

ESTABLISHED over seventy years ago, the Devon and Exeter Horticultural Society deserves well of its county and the West of England generally, for during all those years it has strenuously endeavoured to increase the love of flowers and plants by holding periodical exhibitions in the old cathedral city. Of late years the society has, unfortunately, been compelled to struggle against an adverse fate. Time after time the clerk of the weather has selected the day of the exhibition for a continued downpour, and on one occasion its Chrysanthemum show clashed with that of Plymouth, to which town the larger prizes offered had the effect of attracting the majority of exhibitors. Under these circumstances it is not surprising that its finances have suffered, but strong hopes were expressed by Sir Edgar Vincent, K.C.M.G., the Member for Exeter and president of the society, at a lunch held on the day of the show, that the visit of the National Rose Society and the unaccustomed fine weather it had brought with it would turn a deficit into a surplus, and enable the society to continue its work of usefulness for many a day to come. At the conclusion of the repeat a handsome silver salver was presented to Mr. G. D. Cann, who for a period of fifteen years has ably carried out the onerous duties of hon. secretary.

Owing to the late and cold season the exhibits were not as numerous as they would have been in a more genial summer, but in both the professional and amateur sections splendid blooms were staged that evoked the admiration of the numerous visitors of both sexes that on the 4th inst. thronged the spacious marquees, and between whites sat under the shade of the great Elms in the beautiful Northernhay Gardens and listened to the strains of the Royal Marine band.

In the premier nurserymen's class Messrs. D. Prior and Sons reversed the Temple and Holland House placings and won the silver cup. The greatest number of prizes was won in the nurserymen's classes by Mr. G. Prince, and in the amateurs' by Mr. A. Hill Gray, both carrying off seven.

#### NURSEYMEN.

Forty-eight blooms, distinct varieties: First, Messrs. D. Prior and Sons, Colchester, with—Front row, Duke of Edinburgh, Ulster, Charles Darwin, Comtesse de Nadaillac, Killarney, Mme. Chade, Eugene Furst, Mavouneen, Liberty, Mme. Lacharme, Duke of Wellington, La France, Horace Vernet, Cleopatra, Fisher Holmes, and Maman Cochet; middle row, Marguerite Bonde, E. Y. Teas, Mrs. J. Grant, Mme. Delville, Marchioness of Downshire, Oscar Cordee, Marchioness of Londonderry, Docteur Audry, Bessie Brown, Camille Bernardin, Kaiserin Augusta Victoria, Dupuy Jamain, Marechal Niel, A. K. Williams, Marie Verdier, and Dr. Sewell; back row, Suzanne M. de Rhodocanachi, Mrs. R. G. Sharmar Crawford, Mrs. John Laing, Prince Camille de Rohan, Marquise Litta, Marie Baumann, Mrs. Cocker, White Maman Cochet, Gustave Piganeau, Her Majesty, Ulrich Brunner, Mildred Grant, Comte de Raimbaud, Lady Mary Fitzwilliam, Captain Hayward, and Mme. Gabriel Luizet. Second, Messrs. B. R. Cant and Sons, Colchester, whose new seedling, Ben Cant, was very bright. Third, Messrs. F. Cant and Co., Colchester. Fourth, A. Dickson and Sons, Newtownards, County Down, Ireland, whose stand held the premier Hybrid Perpetual bloom, Marchioness of Downshire.

Twenty-four distinct: First, Mr. G. Prince, Oxford, with—Front row, Captain Hayward, Comtesse de Nadaillac, Prince Arthur, Bridesmaid, General Jacqueminot, Mme. G. Luizet, Earl Dufferin, and The Bride; middle row, Marchioness of Downshire, Dupuy Jamain, Souvenir de S. A. Prince, Ulrich Brunner, Muriel Grahame, Suzanne M. de Rhodocanachi, Princess Beatrice, and Marie Baumann; back row, Mildred Grant, White Maman Cochet, Marquise Litta, Maman Cochet, Mrs. J. Laing, Bessie Brown, A. K. Williams, and Mrs. R. G. Sharmar Crawford. Second, Messrs. Townsend and Sons, Worcester.

Twenty-four distinct varieties, three blooms of each: First, Messrs. D. Prior and Sons, with A. K. Williams, Bessie Brown, Caroline Testout, Gustave Piganeau, Marie Baumann, Mrs. Cocker, Kaiserin Augusta Victoria, Captain Hayward, Prince Arthur, Mrs. R. G. Sharmar Crawford, Mrs. W. J. Grant, Crown Prince, Duke of Edinburgh, Mme. G. Luizet, La France, Helen Keller, Fisher Holmes, Mrs. John Laing, Mme. Lacharme, Horace Vernet, Duke of Wellington, Lady Mary Fitzwilliam, Marchioness of Downshire, and Ulrich Brunner. Second, Messrs. B. R. Cant and Sons. Third, Messrs. F. Cant and Co. Extra prize, Messrs. A. Dickson and Sons.

Twelve blooms, any Rose, except Tea or Noisette: First Messrs. Townsend, with Bessie Brown. Second, Messrs. D. Prior and Son, with the same Rose. Third, Mr. G. Prince, with Mrs. R. G. Sharmar Crawford.

#### TEA AND NOISSETTE SECTION.

Twenty-four blooms, distinct varieties: First, Mr. G. Prince, with—Front row, Muriel Grahame, La Boule d'Or, Mme. de Watteville, E. V. Hermanos, Cleopatra, Jean Ducher, Innocente Pirola, and Princess Beatrice; middle row, Comtesse de Nadaillac, Catherine Mermet, Medea, Ernest Metz, Princesses of Wales, Souvenir d'un Ami, Etoile de Lyon, and Mme. Cusio; back row, Maman Cochet, premier Tea in nurserymen's classes; The Bride, Bridesmaid, Rubens, Mrs. E. Mawley, White Maman Cochet, Elsa de Turenne, and Souvenir d'Elise Vardon. Second, Messrs. F. Cant and Co. Third, Messrs. D. Prior and Son.



# THE GARDEN

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[JULY 19, 1902.]

## FAILURE OF LILIES.

**W**E have received many complaints of the failure of Lilies in general, not the white Madonna Lily only, but of kinds that seldom fail to flower abundantly in their appointed season. The subject is of general interest at the present moment, and therefore it will be well to find out the cause of the wholesale failure of colonies that have been undisturbed for many years.

A cold, wet spring, with intervals of strong sunshine, and severe frosts in early summer, have been responsible for many Lilies failing this season. *Lilium Hansonii* and *L. Henryi*—two good garden Lilies that seldom fail to flower well in most situations—have lost their buds and much of their fresh leafage in cold situations and moist valleys. Happily, experience has proved that injury to these plants is only temporary, and the bulbs, if old-established, appear none the worse for this check to their growth. Lilies of the Martagon type, especially the beautiful *Martagon album*, have also suffered severely, but the injury to these is local. Newly-planted bulbs of *L. Brownii*, *L. Humboldtii*, and *L. longiflorum* in variety, all of which are difficult to tide safely through a cold, wet spring, have in many cases failed to grow; water settling in the bases of the bulb scales and freezing there has fractured the tissues, and successive heavy rains have completed the wreck of the bulbs, which in ordinary seasons would have made some effort to grow or have produced plenty of bulbils from the scale-bases instead of rotting completely. Mishaps such as these, though fortunately rare, emphasise the need of protective covering during winter. The bulbs are made up of brittle, closely-fitting scales, without any protective tunic, and are particularly susceptible to injury from frost or wet, especially when quite dormant and newly planted. The Tulip, Hyacinth, Colchicum, and Camassia have sealed conical bulbs which throw off unnecessary moisture.

Lilies in a growing state are less liable to injury below ground, as the stem roots (where present) search among the scales for moisture, and maintain a more genial condition. Newly-planted bulbs of most Lilies are best wintered under a protective layer of litter, Fir branches, or similar material, whilst Fir boughs, inserted in the ground so as to cover the growing points of Lilies in late spring, will do much to

ward off sharp frosts, such as those we have lately experienced.

The *Lilium candidum* disease (*Botrytis* sp.) is always most virulent in a cold spring, attacking not only *L. candidum* but *L. excelsum* as well. It gives the greatest trouble a few days after a severe frost when the wet flaccid leaves offer the best conditions for spore germination. The only method of combating this disease is to spray the plants heavily several times during early growth with sulphate of potassium half an ounce to the gallon of cold water. This mixture speedily kills the fungus and the spores also, and if the surface of the soil is sprayed there would be less fear of a recurrence of the attack. The bulbs would not require lifting, as sufficient potassium would penetrate to them by way of the stem and by soaking through the soil. The old-established bulbs have a better chance of resisting disease the following year than they would if they were lifted for a dressing.

No matter what measures are taken to keep stocks free from disease we shall never succeed in stamping out the white Lily disease until some restraint is put upon our wholesale merchants, who still persist in importing French *L. candidum* bulbs, the majority of which are reeking with disease, though they do not show it until they start into growth. Scarcely 5 per cent., we are told, of these bulbs survive the third year of planting. In every case it would be a good precaution to dip the bulbs for a few minutes in the preparation of potassium before planting. Flowers of sulphur is another good remedy to apply to the bulbs, but it must be used carefully as it completely sterilises soil with which it comes in contact.

A peculiar disorder affecting *L. auratum*, popularly known as "sunstroke," is probably due to climatic or cultural conditions. Plants, apparently healthy and thriving, suddenly cease growth, the growing point keels over, the tiny immature buds turn brown and drop off, followed by the leaves. Then the stem becomes flaccid, withers, and dies down to the ground level. The bulbs when lifted show no trace of disease, being firm, plump, and healthy, and the roots in most cases clean and vigorous. Numbers of bulbs have been submitted to us showing the same characteristics, nearly all were newly planted that year, and they invariably went wrong during a period of great heat or when the weather suddenly changed. From the reports of correspondents and our own observations it was possible to gather that only those plants

in full sunshine, and planted late in the season, were affected in this way, hence we feel disposed to think that they received a check due to absence of moisture in the soil or to the heat destroying the root hairs nearest the surface. The stem roots are produced just below the surface, and are exposed to fluctuations both of heat and of moisture. It must not be forgotten that *L. auratum* is not a plant of the plains but a native of cool hillsides covered with shrubby growth, where its roots would be protected by other vegetation, and some such conditions must be afforded it under cultivation. Other Lilies, such as *Brownii*, *odorum*, *Krameri*, &c., which have only modified leaves on the lower part of their stems, succeed best amongst dwarf growing plants as a root screen. They derive their main support from stem roots, and these must have a moist, cool and congenial root-run such as would be found beneath a close tangle of scrub. If it is not possible to plant *L. auratum* and allied species with protective plants about them, then such steps as are possible must be taken to ward off heat and retain moisture in the soil. A mulch of soil and manure may do much good, but there is nothing to approach a screen of protective plants that would help in the winter also by withdrawing moisture from the scale-bases, where it is least wanted. We feel we must attribute "sunstroke" to the practice of growing a shade-loving plant in open sunshine, exposed to hot, dry winds. Only those plants that produce abundant stem roots suffer in this way, and these are generally found wild in scrub. Plants like *L. Martagon*, *colchicum*, *Hansonii*, &c., grow wild in exposed situations; they produce very few stem roots, and never suffer from "sunstroke." They are benefited by a sun-screen about their roots, but they can do without it. We believe the cultivator of the future will give greater attention to this matter than has hitherto been the case.

## THE HORTICULTURAL CLUB.

UNDOUBTEDLY one of the most interesting and at the same time useful reunions in the horticultural interest which this club can record took place at the Windsor Hotel, on Tuesday, the 8th inst., on the occasion of the monthly dinner. About thirty members and guests were present. Mr. Harry Veitch took the chair, and the chief guest of the club was Mr. H. M. Arderne, now on a visit here from Cape Colony, where he is the happy possessor of what, by the descriptions and photographs, appears to be a veritable paradise for flower and tree lovers. This lovely and interesting domain, however, in 1840 was rough bush land, but with contour



and possibilities in the landscape line, enhanced to an enormous degree by the immediate vicinity of Table Mountain itself, which inspired Mr. Arderne's father in the first place to improve it, and himself in the second to bring it to its present state of perfection. As Mr. Arderne's paper, which gives the names of most of the striking trees and plants appearing in the photographs, some of which were panoramic, will appear in full in the Journal of the Royal Horticultural Society, we may here, despite the attractiveness of this part of the entertainment, yield to the exigencies of space and touch rather upon the economical points raised by the paper and discussed subsequent to its reading. Mr. Arderne, although the guest of the evening, was not the only one. Professor Henslow, also just returned from the Cape after a four months sojourn, was another, and our Canadian Colonies were hospitably entertained in the person of Mr. McKinnon, who represented Official Agriculture in that country. These gentlemen took a prominent part in the discussion, as also did the Rev. W. Wilks, Mr. Elwes, F.R.S., Mr. Garcia, and Mr. George Monro, each representing different but very practical phases of general horticultural experience. Professor Henslow called attention to the peculiar adaptation of Cape plants to stand the drought to which they were usually exposed, and following an enquiry by Mr. Elwes, referred particularly to the spread of imported plants, to the singular case of *Oxalis cernua*, a plant not known to seed at all, multiplying only by root bulbets, and yet two or three bulbs planted in Malta in 1804 have succeeded in invading the entire Mediterranean region. Mr. Elwes stated that in many parts of Chili our English trees have obtained such a foothold as to give a most misleading appearance as regards locality to the landscape, and Mr. Arderne confirmed this as happening to some extent at the Cape. The most practical part of the general discussion was aroused by a remark of Mr. Wilkes, anent the comparative unfitness of the William Pear to stand long journeys unimpaired, and the greater adaptability for this purpose of the Winter Nelis and other winter kinds. This lead to a general consideration of the foreign fruit question, with special reference to the opening now presented by the establishment of peace at the Cape, for improving the methods of fruit culture in that extremely favourable climate, and thus adding another great British Colonial source of fruit supply to the world. So far it would seem that, with some few exceptions cited by Mr. Arderne, the fine arts of fruit culture, such as the thinning out of Grapes and careful selection, were practically ignored to the great detriment of the ultimate results, while given the more careful culture it was abundantly manifest by the description given that splendid crops could be obtained, much of which would be exportable if the various kinds were selected on the lines suggested by Mr. Wilks, viz., suitability, not merely to the British demand, but also for transport without deterioration. As a side issue, the Canadian trade was discussed, and also that of California, to which fruit producing domains the question of suitable kinds, especially Apples, there being apparently too blind an adherence to precedent in the formation of new orchards. The entire discussion was so replete with sound practical suggestions that it would be highly desirable that the pith of it should appear as an addendum in the Society's Journal, to the valuable paper which evoked it. In any case fresh evidence is afforded that the Horticultural Club is not merely a social horticultural centre, but is also of great practical service in bringing good men together.

## EDITOR'S TABLE.

### GREEN PEAS FROM DERBYSHIRE.

I have enclosed a few pods of Drummond's Primus Pea, of which I have a splendid crop in this very cold part of Derbyshire. Early Peas in this district are generally very poor. These Peas were sown in December, 1901, and have grown 6 feet to 7 feet high. Drummond's Primus ought to be more often grown than it is. I think there

is no other Pea to compare with it for quantity and quality; it is also very hardy and early.—E. CLEMENTS, *The Gardens, Brookhill Hall, by Alfreton.*

[Mr. Clements sends some excellent pods of Peas, and we can well believe this to be a valuable variety in this cold district.]

### DIANTHUS DELTOIDES.

This charming native Pink has been sent to us by "H. R.," Chiswick, who writes: "This little Pink is growing freely in my rock garden at Chiswick, which, as you are doubtless aware, is a suburb of London. Its bright pink flowers are very pretty. It is a good plant for a wall."

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

July 19.—National Rose Society's Northern Show, Manchester.

July 22.—Royal Horticultural Society's Committees meet; National Carnation and Picotee Show, both at Drill Hall, Westminster.

July 23.—Cardiff and County Horticultural Show (two days); Newcastle Exhibition (three days).

August 4.—Grantham and District Horticultural Show.

August 5.—Royal Horticultural Society's Committees meet, Drill Hall, Westminster; Leicester Flower Show (two days).

August 7.—Midland Carnation Show, Birmingham (two days).

August 9.—Manchester Carnation Show; Crewe Horticultural Exhibition.

August 12.—Clay Cross Flower Show.

August 13.—Salisbury Horticultural Show.

August 14.—Taunton Dean, Rock Ferry, and Sheffield Horticultural Shows.

**Midland Carnation and Picotee Show.**—We are authorised to state that this exhibition will be held at Birmingham on Thursday and Friday, August 7 and 8.

**National Dahlia Society.**—A meeting of the committee of the above society will be held, by kind permission of the Horticultural Club, in the Club Room at the Hotel Windsor, Victoria Street, S.W., on Tuesday next, at 4 p.m. Business: Election of Judges; Advertising Exhibition; other business.—J. F. HUDSON, *Hon. Secretary.*

**Royal Horticultural Society.**—The next fruit and flower show of the Royal Horticultural Society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1–6 p.m. At this meeting plants—other than for certificate—can only be shown in very small groups, and only then by prearrangement with the superintendent. A lecture on "The Botanic Gardens and Flora of Malta," illustrated by limelight, will be given by the Rev. Professor George Henslow, M.A., V.M.H., at three o'clock. At a general meeting of the above, held on Tuesday, the 8th inst., seventy-four new Fellows were elected, amongst them being Viscountess Strathallan, Lady Fermoy, Lady Savile, Lady Clementi-Smith, Sir Cecil Clementi-Smith, K.C.M.G., Colonel Carruthers, and the Hon. Cecil Campbell, making a total of 826 elected since the beginning of the present year.

**National Chrysanthemum Society.**—The annual outing and picnic of this society will take place on Wednesday next, when, by kind permission of Sir Weetman Pearson, Bart., M.P., the gardens and grounds at Paddockhurst, Worth, Sussex, will be visited. The company will be conveyed to the Three Bridges Station by the London, Brighton, and South Coast Railway. Trains leave Victoria at 10.40 a.m., Addison Road (change at Clapham Junction) 10.15 a.m., London Bridge 10.5 a.m. Members and friends are, however, requested to meet at Victoria, if possible. The train leaves Three Bridges at 8.30 p.m. Application for tickets, which are 10s. each, should be made to Mr. Richard Dean, Ranelagh Road, Ealing, W., at once.

**Some really distinct and good new Zonale Pelargonias.**—Amongst a



THE MAIDEN PINK (*DIANTHUS DELTOIDES*).  
(Natural size.)

large and so well filled with flowers as to make it a most desirable variety. Fraicheur: This is quite the most beautiful double-flowered variety with a distinctly marked Picotee edge that I have yet seen. It is a distinct improvement on that fine old French double, Mme. Alcide Bruneau, which remained so long without any rival. The new comer, however, is much more delicate in colouring, and with well-formed and most evenly-margined pips. Olive Schreiner is also a very fine Picotee, edged double with larger and more double flowers, but it is not so delicately beautiful as Fraicheur.—W. E. GUNBLETON, *Belgrove, Queenstown, Ireland.*

**Ealing Horticultural Society's show at Gunnersbury Park.**—It would be difficult to select a better and more suitable spot for a flower show than Gunnersbury Park, the charming suburban retreat of the Messrs. de Rothschild, so full of arboricultural and horticultural interest. Since the above society held its previous summer show here many improvements have been made, not the least of which being the removal of the wall dividing the grounds of Gunnersbury House from Gunnersbury Park, thus giving a greater extent of beauty and interest to both places. With a truly kindly characteristic forethought and practical way of showing his well-known interest in gardening charities, and well worthy of being imitated in many private gardens, Mr. Leopold de Rothschild threw open the delightful Japanese garden at Gunnersbury House for inspection by visitors to the show, the proceeds derived from the admission charge being devoted to those splendid charities the Gardeners' Orphan Fund and the Gardeners' Royal Benevolent Institution. The elements were decidedly unpropitious on July 9; it is to be feared, therefore, that Mr. Leopold de Rothschild's excellent idea did not meet with the success it so richly deserved, and that the society itself did not secure that financial harvest it looked forward to reaping.—Quo.



**Gerbera Jamesoni.**—The following note about this beautiful plant is interesting:—"My son sent me some roots of Barberton Daisies (*Gerbera Jamesoni*) from Barberton, near Transvaal, on May 7. They were potted here on June 2. Some are in bloom now. I think it may interest you and your readers to see a sketch of one. The flowers vary in colour from rich red to pale coral-pink. The pistils of the central florets are black in some and yellow in others. The leaves are a rich dark green. I have four different colours in bloom now.—EDITH D. L. THORNYCROFT, *Thornycroft Hall, Siddington, Crewe.*—[A very charming sketch of a plant that does well in warm soils.—Ed.]

**Agricultural Association of Hungary.**—This society will hold an exhibition in the town of Pozsony from September 7 to 14, at which displays of horticultural produce and implements will be features of interest. This district has the reputation of being the most highly cultivated as well as one of the most beautiful parts of Hungary.

**Great Hyacinth and Tulip competition for 1903.**—The Royal Bulb-growing Society of Haarlem have offered, and the Royal Horticultural Society have accepted, a grand prize for Hyacinths and another for Tulips, to be competed for at the Drill Hall on or about March 24, 1903, as follows: 120 Hyacinths in pots (single spikes) in forty varieties, not more than three pots of any one variety, open, first prize, £7; second prize, £5; third prize, £3. 100 pots of Tulips in fifty varieties, three plants of the same variety in each pot, and not more than two pots of any one variety, open, first prize, £4; second prize, £3; third prize, £2.

**Royal Horticultural Society's Scholarships.**—Sir Trevor Lawrence, Bart., President of the Society and Master of the Worshipful Company of Gardeners, very kindly offered a scholarship of £25 a year for two years, to be awarded after the examination of the Royal Horticultural Society in 1894, to the student who should pass highest, if he were willing to accept the conditions attaching thereto. The main outline of these conditions is that the holder must be of the male sex, and between the ages of eighteen and twenty-two years, and that he will study gardening for one year at least at the Royal Horticultural Society's Gardens at Chiswick. Scholarships have been offered by various gentlemen every year since then, and that for 1901 was given by Henry Wood, Esq., and will be continued in 1902 by F. G. Ivey, Esq., both gentlemen being members of the Court of the Worshipful Company.

**Examination in horticulture.**—The annual examination in the principles and practice of horticulture was held by the Royal Horticultural Society on April 23 last, when 229 papers were sent in. Three hundred marks were allotted as a maximum, and all candidates who obtained 200 marks and upwards were placed in the first class. The total number was ninety-seven, or about 42.3 per cent. The highest number of marks, 285, was awarded to Miss W. M. Buttenshaw, of the Horticultural College, Swanley, Kent. Those who secured 150 and less than 200 marks were placed in the second class. The number was ninety-eight, or about 42.7 per cent. Those who obtained 100 marks and upwards were ranked in the third class. The number was twenty-eight, or about 12 per cent. Six candidates obtaining less than 100 marks were not placed. A slight increase in the number of entries has occurred, 225 being that of 1901; but still it falls considerably short of that in 1900, viz., 236. In the "principles" there were no serious mistakes, but merely varying degrees of knowledge upon the matter treated of in the replies. The answers as a whole were well expressed, showing considerable care in preparation. In the horticultural practice department the candidates kept well to the questions they had to deal with, except in the one relating to landscape gardening; on this subject there is considerable room for improvement. The examiners were the Rev. George Henslow and Mr. James Douglas.

**Potentilla pulcherrima.**—From a good source I have obtained under this name a pretty Cinquefoil at present in bloom, after standing the

winter in the open. According to the "Index Kewensis," its correct name is *P. hippiana*, but on referring to Britton and Brown's "Illustrated Flora of the Northern United States and Canada," I find no reference to the name of *P. pulcherrima*, and the plant there figured as *P. hippiana*, with the synonym of *P. leucophylla*, does not quite correspond to my plants, though there is certainly a considerable resemblance in the description. Although we have a good number of single *Potentillas* with yellow flowers in cultivation, one may find a space for this with advantage, as its bright yellow flowers, so freely produced on a plant of erect, but not weedy habit, make it attractive in the border, where such things are welcomed. *P. pulcherrima*, as I have it here, grows to about a foot in height, and produces a number of small bright yellow flowers about half an inch across in loose terminal cymes. The leaves are quite white beneath. In North America it favours dry soil. As it has a widely extended habitat it possibly varies considerably in appearance according to the different localities in which it grows.—S. ARNOTT, *Carsethorn, N.B.*

**Chrysanthemums at Woodford.**—This eastern part of London is well known as a great Chrysanthemum centre, the large, handsome, exhibition blooms emanating from the two collections herein referred to usually achieving much success. The collection at The Monkams this year is represented by several hundreds of well-grown plants, Mr. A. F. Hills being quite an enthusiast, and in consequence heartily supporting the efforts of Mr. R. Kenyon, his able grower. The latter appears to be taking infinite care, no doubt with the object in view of securing some of the leading prizes in November next. One was impressed with the care taken to ensure the development of the second crown buds or other buds at a date best suited to the respective sorts, and for this reason Mr. Kenyon has freely adopted the now recognised system of stopping and timing his plants. Those of Edwin Molyneux were looking remarkably well, as were some grand plants of Mrs. Barklay. The last named, as well as many others, were developing their first crown buds, and this should give the second crowns at the right time. Miss Nellie Pockett, Le Grand Dragon, Kimberley, and that antipodean wonder, J. R. Upton, were noticeable. Calvat's '99, Godfrey's Pride, and May Vallis were each well represented. Quite a lot of the Mme. Carnot family were in evidence, and this year smaller pots than usual are being used. Of the newer sorts calling for special notice the following may be mentioned: Masterpiece, Mrs. G. Mileham, Godfrey's King, Sensation, Bessie Godfrey, W. R. Church, Phyllis, Charles Longley, Ethel Fitzroy, C. J. Mee, Ben Wells, Lily Mountford, and Mme. Von. André. A batch of healthy-looking plants of Viviani Morel and its sports were given a cooler position than most others, and they certainly seemed to appreciate that consideration. About a mile away from the first-named garden is the establishment of Mr. R. C. Pulling, at Monkams Nursery, Woodford. Mr. Pulling grows some thousands of plants for trade purposes, and at least a thousand for exhibition uses. His exhibition plants are superb. Quite a lot of Julia Scaramanza are grown for the December shows, and these were splendidly represented. Australia and Mme. Herreweghe (white sport from the latter) were in fine form, and there was ample evidence of the buds coming about right. Plants of General Hutton were making good wood, and those of Scottish Chief were promising. The latter is a refined flower, unfortunately seldom seen. A batch of Lily Mountford was represented by pretty dwarf plants, and there is a feeling this variety will equal expectations originally entertained of it. The family of plants, of which Mrs. C. Harman Payne was the original, are all doing well, Mr. Louis Remy, Mr. A. Barrett, and Mrs. G. W. Palmer being the more noteworthy. The plants of Mrs. Barklay have probably never been seen in better form, the growth being luxuriant, strong, and well ripened. The richly-coloured Duchess of Sutherland has a rather straggling habit of growth, but it was doing well. Of the "Carnot"

family there was a grand lot of well-ripened plants, which augurs well for future display. Other good sorts were W. R. Church, Godfrey's Pride, Miss Evelyn Douglas, Kimberley, Sensation, Bessie Godfrey, and H. E. Hayman.—D. B. CRANE.

**Crystal Palace Fruit Show.**—The Royal Horticultural Society's ninth great annual show of British-grown fruit will be held at the Crystal Palace on September 18, 19, and 20. For schedule of prizes including special ones for bottled and preserved fruits and full particulars, apply to the secretary, R. H. S., 117, Victoria Street, S.W.

**National Carnation and Picotee Society.**—The above society will hold their annual show on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, at 1—6 p.m.

**Japan Irises.**—There is a remarkably fine lot of these superb Irises growing close to the edge of a long lake in Clandon Park, near Guildford, the residence of the Earl of Onslow, who is a warm admirer of these beautiful Japanese flowers. A narrow footpath runs along on the north side of the lake, and the Irises are between that and the water, and close, so that ample moisture is supplied them. In such semi-aquatic positions they seem to luxuriate, growing and flowering splendidly. All the best-named varieties seem to be present, and in a more remote spot are large numbers of seedlings flowering in drills as sown, but these seem to be chiefly reproductions of the parents. On the sloping side above the path German and tuberous Irises grow abundantly and *Alstroemerias* and *Day Lilies* luxuriate. Such a collection of the Japanese varieties is rarely seen in any private garden.—A. D.

**Peas at Chiswick.**—There is a big trial of sixty-five varieties of Peas in the Royal Horticultural Society's gardens at Chiswick this season, and members of the fruit and vegetable committee met there on the 11th inst. to examine them. Some of the varieties are old; some are new. Oddly enough, an award was made to but one really new variety, viz., Western Express, 5 feet in height, and somewhat of the *Gradus* type, sent by Messrs. R. Veitch and Sons, Exeter. This had an award of merit. Similar awards were made to Messrs. Sutton and Sons' Dwarf Harbinger, very early, and well suited for pots, boxes, or warm borders; Little Marvel, 20 inches, a great cropper, and early; and Early Giant, 4 feet, a fine early Pea of the Duke of Albany type. First-class certificates were given to Messrs. James Carter and Co.'s Daisy, a dwarf Pea of noted excellence; and to Messrs. Webb and Sons', Wordsley, 3-foot Pea Senator, a splendid cropper, and early. The seed of this variety was sent by Mr. A. Dean, Kingston-on-Thames, who regards it as one of the very best Peas in cultivation.

**Æsculus indica.**—With the Californian Horse Chestnut, *Æ. californica*, and the dwarf species, *Æ. parviflora*, from the Southern United States, the above species forms a small summer-flowering group, the flowers appearing long after the others are over. The Indian Horse Chestnut—which is the popular name for the species under notice—is a native of the Western Himalaya, and forms a medium-sized tree. The leaves are quite distinct from those of the common Horse Chestnut; they consist of seven leaflets, the two, and sometimes the three, lower ones being considerably smaller than the others. The leaflets are well apart at the base, and have stalks from a quarter of an inch to half an inch long. The whole leaf is glabrous, and the margins of the leaflets are regularly serrated with minute teeth. At Kew flowers have been borne recently. The first opened during the last week in June, and the inflorescences were at their best during the first and second weeks in July. They are rather smaller in size than those of the common Horse Chestnut, but otherwise very similar. When they first open the upper petals are blotched with yellow, the yellow turning to a reddish colour with age. At Kew the species proves more tender than most varieties, spring frosts often damaging the young shoots. For gardens where severe frosts are not experienced in late spring, this tree would be an excellent subject to plant, as it flowers at a time when very few other trees are in bloom.—W. DALLIMORE.



### Notes from North-East Scotland.

—*Ramondias* are just going over in the rock garden, and *Libertia formosa* is beginning to open its clean white flowers. The *Helianthemums* are a blaze of colour, with shades seen only among some of the Tea Roses; the double ones I do not care for. *Silene alpestris* is very charming, and should be grown in every alpine garden, however small; it is always neat and tidy. Another good plant is *Linaria hepaticifolia*, which runs about over the stones and smothers itself with its little mauve-lilac flowers. The following *Sedums* are in flower: *kamtschaticum*, *glaucum*, and *lydium*, the latter, except for the flowers, looking like tufts of bright green Moss. Of Lilies, *rubellum*, *monadelphum*, and *Martagon album* are flowering well, while *giganteum* is throwing up some splendid spikes. Among shrubs *Hedysarum multijugum* is just beginning to open its reddish flowers, and the plants are covered with buds. The Snowdrop Tree (*Halesia tetraptera*) is passing over, and *Spartium junceum* is showing its first spikes. *Spiraea Van Houttei* is a sheet of white, and the Austrian and Penzance Briars are very bright and full of bloom. Some of the Bamboos are now growing at the rate of 6 inches or 7 inches a day.—N. B.

### THE PLANTING OF VINES.

(Continued from page 2.)

BEFORE going into details as to how planting should be done, it will be advisable to first consider what we ought to plant. When a vineyard is replanted with young Vines, when those used have usually made one season's growth that is to say, they consist of a long rod or cane furnished with leaves or buds only according to the season of the year. These young Vines are raised from buds very early in the year, and are made to grow as quickly and vigorously as possible throughout the following summer, and in the autumn are ready for sale. If, however, one wishes to make sure of having extra strong canes, that one knows will go ahead when planted, it is advisable to procure what are known as "cut-backs." This name is given to young Vines that have been grown exactly as the others during the first season, but instead of being offered for sale they are kept through the winter, then cut back to within two buds of their bases; the stronger of the shoots emanating from these buds when the Vines are again started is selected to form the cane for the next season, the other bud being rubbed off. The following autumn, or perhaps before, these are sold as "cut-backs," really Vines two years old instead of one year old, as are the majority of planting Vines. The difference in price is not very great, and by obtaining "cut-backs" there is often a better start made, and this means a great deal, although, of course, there is no reason why one year old Vines should not do equally well, provided they are carefully treated and not hurried along at all. For the first few years after planting young Vines require the coolest of treatment, anything in the way of forcing should be altogether avoided or the Vines may perhaps be crippled. Opinions differ as to the most suitable season for planting Vines, but they may be planted at various times with quite equal chances of success. We usually prefer, when it is possible, to plant them in late summer or early autumn before growth is quite completed, for they then have an opportunity of becoming established before the winter months, and are in the best possible condition for starting away freely in the spring time, and making the best use of the long season of growth before them. If proper precautions and reasonable care are taken young Vines may be planted at almost any season of the year; but still, for the reasons given, we consider the early autumn or late summer to be the most suitable if this can be managed. We have, however, planted them in midsummer on several occasions. Great care is then required in planting, for the plants being in full leaf and growth will naturally much more quickly receive a check than if the roots were not so active.

At any time during the summer they may be planted, providing care is taken not to leave them

in the cool or cold air any longer than is necessary, for they will, of course, have been grown in a warm house. It is not wise to plant young Vines in the dead of winter, for then their roots are less active than at any other part of the year, the soil of the border would be cold, and the plants could not possibly make any progress at all until the advent of brighter and milder weather. Probably by that time many of the most valuable roots, the young fibrous ones, finding themselves amidst such uncongenial surroundings, would to some extent perish. Such naturally would greatly affect the Vines making a vigorous start in early spring, with the result that they would probably still be growing when the wood should be ripening. Upon such wood good buds could not possibly be produced, and a permanent weakening of the Vines might therefore be brought about.

That planting, which while admitting of the least check to the progress of the Vine, and yet allows of its becoming so established before the winter that it may make a good beginning in spring, seems to me to be the most rational method to adopt, and that plan undoubtedly is the one above recommended. After having practised it also for many years, it can unhesitatingly be said that it has a great many advantages over any other. Having then decided upon late summer or early autumn planting, we will now consider the best way to proceed with this important operation. Supposing the border to have been made a week or more, since when it will have settled down considerably, the first thing is to determine how many Vines are to be planted in the house and how far apart they are to be planted. Before doing this there are several points to take into consideration, namely, whether the Vines are, as soon as established, to be forced for early crops, or whether they are simply to provide late summer Grapes. If the former is the case, then naturally the canes might be planted more closely together than under the latter circumstances, for the shoots and leaves made by the early forced Vines would not be so vigorous, and therefore would not require so much room as those produced by plants assisted rather than forced in their development. Different varieties also vary greatly in habit and vigour, such, for instance, as Diamond Jubilee, Gros Maroc, and Alicante should have more space between them than would be necessary for such as Lady Downe's Seedling, West's St. Peters, Golden Hamburgh, or Madresfield Court.

A. P. H.

### THE FRUIT GARDEN.

#### FRUIT THINNING.

**I** FEAR in many parts of the country, at least in the southern portion, there is less need to thin hardy fruits this season than has been the case for many years. In our own case we have fewer Pears and Apples than we have had for many years. On the other hand, trees here and there (but very few indeed) will well repay thinning, and one often passes young healthy bush Apple and Pear trees that have not a single fruit. Such varieties as need thinning should now receive attention. Our best cropper among Apples is Lane's Prince Albert, and this never fails us. Frogmore Prolific is very good. Several of Calvilles and Sandringham are bearing splendid crops. As regards Pears the crop is more even, but a very thin one, and a Plum tree here and there needs thinning; but, fortunately, in other parts of the country I have seen some heavy crops of Victoria, Monarch, and late varieties. I am greatly in favour of lightening the crops of late Peaches even now, as the fruits left finish up so much better, and as far as my experience goes small fruits of any kind are not worth growing or storing, and by early thinning the trees have a better chance of finishing the crop. It is an easy matter to go over the trees here and there occasionally; it is far better to do this than remove a great many fruits at one time, as by doing the work piecemeal it can be seen which fruits are

likely to take the lead. These, if well placed, are best retained. I recently noticed in the northern part of the country there is a heavy Apple crop. As the trees were in bloom about a month later than ours they escaped the severe weather we experienced in May, and here thinning will be more beneficial. Even such fruits as Strawberries will repay by timely removal of surplus fruit. Gooseberries may be made use of in a green state, and by their removal the young trees especially greatly benefit, as these trees often mature too many fruits, and there is a great drain on the roots. For some seasons our best Gooseberries have been obtained from cordon trees grown under wire netting, and if heavy crops are left to mature such trees will fail to make good leaders; the latter should be encouraged as much as possible. Raspberry canes suffered so badly that the plants will produce very poor crops this season, but the autumn fruiters will be good if the canes are thinned to allow others to grow freely. G. WYTHES.

### CHERRIES AT HOLLAND HOUSE.

THE interesting collection of Cherries (in all twenty-four dishes) enabled many interested in their gardens as amateurs, as well as those engaged in the trade, to institute comparisons. The exhibit would have been much more instructive had the Cherries been placed into the several sections in which they are grouped in Messrs. George Bunyard and Co.'s comprehensive catalogue. This I will endeavour to do, so that the colour of the fruit may be indicated. When the displays in the large tent in which the collection of Cherries from Maidstone was placed were roped off, which was done as soon as the contents of the tent had been judged, it became practically impossible to read the names of the different varieties without difficulty, and that is a valid reason for giving the names of the leading sorts.

Of the Bigarreau Cherries, with their large and either white or amber-tinted fruit, the well-known Frogmore Early Bigarreau was seen in fine character. It is a luscious fruit, and ripens on a warm wall early in June. Early Amber is perhaps one of the very earliest to ripen, and the quality being good, as well as possessing a desirable habit of growth, it is a great favourite in the East Kent market gardens. Elton Heart, which is also early, is an excellent orchard variety to yield a first crop, and it does well in a heavy soil; fruit large and bright. Governor Wood is well known as a fine Cherry, the fruit large, but to have it at its best should be grown against a wall. It does well as a pot plant, but when cultivated as an orchard standard is apt to gum if in a position exposed to the action of frost. Kirkland's Mammoth was in fine character, the fruit large, handsome, and firm. It should have wall culture.

The Black Heart and Bigarreau Cherries were generally represented by very fine fruits. Early Lyons, as it was named at Holland Park, but probably more properly Bigarreau Jaboulay, was represented by fine fruit, and grown in a Cherry house or on a wall it is superb. It is also a hardy variety for orchard standards. Bigarreau de Schreken is also a very early variety, the fruit large, richly flavoured, and of fine colour. Bigarreau Noir de Schmidt produces fruit of a rich blackish red colour, and is a good early variety. Its best position is on a wall. Black Cluster (or Caroon) is recommended as a prolific orchard market variety, fruiting with freedom in clusters, the fruit small, deep black in colour, and travels well. The old Black Heart was in fine character, one of the earliest to get into the markets, and a reliable orchard tree. Early Rivers' was superb, its large black fruit most tempting, very handsome and richly flavoured, one of the best for forcing or a Cherry house, and also for a wall. Mr. George Bunyard states that "as an orchard tree it requires close pruning for three or four years and then forms a grand tree." No one will be surprised to learn the fruit fetches a high price in the market. Knight's Early Black is a very early Cherry, well flavoured, and one of the freest bearers. Roundwell Black Heart is a large and fine looking East Kent Cherry, ripening in mid-season.



Of the May Duke Cherries Archduke produces fine fruit, is a good bearer, and excellent flavour. Belle d'Orleans is a very early Gean type, the fruit tinted pink, well adapted for wall or Cherry house, good bearer, and sweet flavoured. Belle de St. Tronc is also very early and a useful sort. Guigne d'Annonay is a very early new black fruited Gean, free bearer, richly flavoured, and extra fine. The old May Duke is one of the best orchard varieties for an early crop; it is the English Cherry of the Parisians. Ramon Oliva produces large black fruit. It is a mid-season variety, the fruit very large, sweet, and firm.

R. DEAN.

### BRUNFELSIA CALYCINA.

BRUNFELSIA CALYCINA (confertiflora) does very well in Hong Kong, as may be seen from the illustration sent. The specimen is growing



BRUNFELSIA CALYCINA IN HONG KONG BOTANIC GARDENS.  
(From a photograph by Mr. Tutchet, Assistant Curator).

in a rather shady corner of the garden, and flowers freely every year during March.

W. J. TUTCHER.

Botanic Gardens, Hong Kong.

### AMERICAN NOTES.

#### A FEW LATE-FLOWERING SHRUBS

It is late in June; the "sweet o' the year" is over, for have not the Roses faded? Only some of the ramblers and trailers, such as the wichuriana type, and Hybrids, and a few belated blossoms here and there on the Hybrid Perpetuals mark the close of the great Rose carnival of June. In a sunny space opposite Cedar Ledge the Prairie Roses, each plant a graceful fountain of bloom, rise from a carpet of *R. wichuriana*, which is starring the ground with numberless pure white blossoms.

These two species are just in their prime, and never more effective than when planted in this manner. *Rosa setigera* (the Prairie Rose) blooms in clusters, the buds of which open one after the other. They are a bright pink when they first unclose, but the hot sun fades them to a much lighter shade, giving a variegated aspect to the clusters, which show at the same time blossoms of clear bright rose, those of a lighter hue, and some that are almost colourless.

The white *Microphylla* Rose is also now at its best, and very charming with its glossy, dark green, healthy looking foliage and its fragrant waxy white blossoms, opening all summer long. There always seems to be something bride-like about the *Microphylla* Rose, suggesting wedding bells.

Of the ornamental shrubs and small trees that we plant in our gardens fully two-thirds bloom in spring or early summer. At present only a few kinds are in flower, and most of these have white blossoms. I have just returned from a ramble around the shrubberies. Only one species out of a collection of several hundreds bears yellow blossoms at this time of the year, and that is the double-flowering Japan *Corchorus*. It is too early for *Hypericums*, and all the *Coluteas*, *Caraganas*, *Laburnums*, and *For-sythias* are past their flowering season. But the Japan *Corchorus* is with us always in flower, from April until late in the autumn, making it one of the most valuable shrubs we possess.

In a collection of *Spiræas* numbering thirty-two species, we find some bloom throughout the summer, but May is the month when most *Spiræas* are at their best. The species and varieties of *Spiræa* now flowering at Rose Brake are *Spiræa lindleyana*, *S. sorbifolia*, and *S. callosa* var. *alba*; also the well-known variety with bright rose-coloured flowers called Anthony Waterer.

*Spiræa lindleyana* has Mountain Ash-like foliage, very much resembling that of *Spiræa sorbifolia*, which with me is hardier and much more robust in habit of growth. Both species are in flower. The blossoms of *Spiræa lindleyana* are a purer white than those of *S. sorbifolia*. *S. lindleyana* is best planted in moist earth, such as the margins of brooks or ponds. When well grown it is a beautiful and graceful tropical-looking plant. Here it is very apt to die down to the ground in severe winters, but our most intense cold weather fails to kill it outright. We are trying several varieties of *Spiræa callosa*. One sent to us under the name *superba* is a fine large shrub, differing from the type by the superior size and deeper colour of the flower-truss. This may be described as a rich light crimson. *Ceanothus americana*, which is our one representative of its family, is now in flower. It is a small shrub, with ovate leaves 1 inch to 1½ inches in length, and dense panicles of small white flowers, and is chiefly valuable because it blooms at this time. It is pretty for the margin of shrubberies.

*Itea virginica* is an interesting little plant, now flowering in company of the *Ceanothus*. It belongs to the Saxifrage family, and is the only species in the United States. In favourable situations this

shrub grows 10 feet in height. The light green leaves are oval and from 1 inch to 2 inches in length. The white blossoms are in terminal racemes with linear petals. It is a pretty and rather showy plant when in bloom.

*Callicarpa purpurea* has many little pink blossoms in axillary cymes, which, while they are not individually showy, are very pretty in the mass. Later, when the beautiful violet-blue berries take the place of these little flowers, the shrub will be strikingly ornamental.

Privets and Elders are in flower, but are too well known to English readers to need a description.

*Yuccas* are making a grand display, but I scarcely know whether it is proper to describe them under the head of shrubs. But the showiest of all the flowering plants now in bloom at Rose Brake are the *Catalpas* and the Oak-leaved *Hydrangeas*. The *Catalpa* is a native of the Gulf States, but is perfectly hardy in the Virginias. It belongs to the family of the *Bignoniaceæ*. In its native haunts it forms a tree 50 feet in height, but in this neighbourhood it is seldom more than half so tall. This tree is largely used in the public grounds of Washington. At Chevy Chase Lake many of them are planted along the margin of the water. When they are in bloom it is worth taking a long journey to see them, so showy are the large panicles of bloom. The campanulate flowers are about 1½ inches in length, and are white, streaked and mottled with purple and gold. The kinds that are most planted are *Catalpa bignonioides*, *C. Kämpferi*, which is a Japanese species, and Tea's hybrid *Catalpa*.

The Oak *Hydrangea* is a most noble shrub, often 15 feet or even 20 feet in height, with branches feathering to the ground, and great leaves from 6 inches to 1 foot in length. Sometimes on the lower limbs, the grand panicles of bloom rest on the grass of the lawn. These feathery panicles, from 6 inches to 9 inches in length, are creamy white when they first open, but change gradually to pink and then to a dull red.

The latest *Magnolia* to flower at Rose Brake is *Magnolia glauca*, which is quite hardy, and is found in a wild state as far north as Boston. This is a pretty little *Magnolia* now in bloom. It has lustrous foliage, unharmed apparently by any insect, and beautiful creamy white blossoms, very fragrant, but not very freely produced.

This is a list of all the shrubs now in bloom at Rose Brake, as it is still too early for *Hypericums* and the various kinds of *Hibiscus*.

DANSKE DANDRIDGE.

Shepherdstown, Jefferson Co., West Va., U.S.A.

#### FLOTSAM AND JETSAM.

THE Fair, a large department store in Chicago, has made a new departure in attractions for visitors by providing a real playground for children inside its vast building. Pillars form the corners, covered with bark and long branches intertwining overhead, while underneath is a real lawn, a real sand pile, with wheelbarrows and shovels and gravel paths. Swings and hammocks are provided, and the whole surrounded by a picket fence. The sods will be replaced frequently, as soon as worn down. Attendants are provided, and it will be a veritable paradise to weary little ones dragged along by their mammas who go shopping.

An unfortunate florist's assistant in New York is answerable for \$10,000 of damage done to a magnificent residence last week. The family were from home. The conservatory is immediately above the ballroom, and the man in question had daily to water the many fine plants. On this occasion he forgot to turn off the hose when he left, and the water flooded the room, leaking through into the ballroom. The alarm was given by the water reaching the electric wires and grounding the circuit, which caused a buzzing in the electric company's alarms. The ballroom was highly ornamented in white and gold fancy designs, while the ceiling, which is more than 20 feet high, was beautifully frosted.

A comical item comes from one of the colonies, where a resident found the duty on cricket



paraphernalia oppressive till he hit on the plan of importing them as "agricultural implements." This being rather demurred to on arrival, he demonstrated their utility in that capacity by making a hole in the ground for a plant with the round end of a oar and shovelling in the dirt with the paddle end. It succeeded.

C. MACQUARIE.

Chicago.

## IRIS HISTRIOIDES.

THIS is one of the most charming of the spring-flowering Irises. It has a stronger constitution than any of the reticulata forms, and, generally speaking, proves of easy culture. The flowers are large, the falls mottled with white and rich lilac both on the claw and on the broad, rounded blade. It is a native of Eastern Anatolia, and flowers in early March. It should have the same treatment as *Iris reticulata*. A coloured plate of this *Iris* was given in *THE GARDEN*, October 22, 1892, vol. xlii. It was exhibited by Messrs. Laing and Sons before the Royal Horticultural Society on February 9, 1892, and then received an award of merit.

T.

## RECENT PLANT PORTRAITS.

THE number of the *Botanical Magazine* for July contains portraits of *Begonia angularis*, a native of Brazil, also known under the synonyms of *B. crenulata*, *B. zebrina*, *B. hastata*, and *Pritzelia zebrina*. This is one of the fibrous-rooted varieties producing large loose panicles of pure white flowers and with handsome dark green foliage of angular form veined with white.

*Muscari latifolium*, native of Asia Minor, also known as *Bellevia monophylla* and *B. muscarioides*, a very broad-leaved variety with large spikes of rather dull purple flowers.

*Impatiens cuspidata* var. *arthritica*, a native of the Nilghiri Mountains. This is also known as *I. latifolia* and *I. flaccida* var. *arthritica*. It is of only botanical interest, with curiously swollen joints and small white flowers shaded or flushed with rosy purple.

*Cynorchis villosa*, native of Madagascar. This is a pretty little terrestrial Orchid, with handsome foliage and spikes, rosy purple and white flowers.

*Byblis gigantea*, native of Western Australia, also known as *B. lindleyana*. This is the most beautiful Sundew I have ever seen, with bright rose-coloured flowers resembling those of an *Oxalis*.

The July number of *Revue de l'Horticulture Belge* contains portraits of:—

*Begonia Perle de Lorraine*, one of the fibrous-rooted varieties, with small pink and white flowers produced in great abundance.

*Deutzia corymbiflora*, one of the many forms of beautiful new *Deutzias* of recent introduction, but the colour as here shown is not true to Nature, as I know it, being shaded with purplish rose, whereas I believe the flower to be pure white. The plant here figured is more like Lemoine's *D. gracilis carminea*.

The first part of the *Revue Horticole* for July has a portrait of:—

*Erica mummosa verticillata major*.—This is a Heath with relatively large bells of a curious shade of reddish orange.

The second and third numbers of the seventeenth volume of *Lindenia*, which appear together, contain portraits of the following eight Orchids:—

*Odontoglossum sceptro-crispum*, a fine variety with pale yellow ground colouring, distinct brown blotch marking, and a pure white lip with a fringed edge.

*Cypripedium lathamianum* var. *imperiale*, a fine

variety, with a pure white dorsal sepal clearly veined with rosy purple.

*Cattleya gigas* var. *meuleneriana*, an extremely beautiful variety with large flowers and a deeply fringed lip.

*Cypripedium lecanium* var. *Alexandre*, a fine Orchid with large pure white dorsal sepal.

*Laelio-Cattleya* var. *Duchenei*, a most beautiful and highly coloured variety with fine broad purple lip edged with white.

*Cymbidium zaleskianum*, a fine large flowered variety with distinctly marked showy flowers.

*Oncidium Forbesii* var. *atratum*, a fine large flowered variety with brown and yellow colouring.

*Odontoglossum crispum* var. *memoria Bulli*.—This is an exceedingly beautiful and most distinctly and evenly marked variety, with a pure white ground with large blotches of a clear shade of reddish brown.



IRIS HISTRIOIDES.

(From a drawing by Miss Agnes Barr.)

The last bi-monthly portfolio of the *Dictionnaire Iconographique des Orchidées* has portraits of the following thirteen Orchids:—

*Cypripedium rhodopsis*.—*C. germinianum* and *Eucharis* var. *fournierianum*; both in their way ornamental varieties.

*Laelio-Cattleya Mme. Marguerite Fournier*.—An exceedingly beautiful variety with deeply fringed lip.

*L.-C. Doris* var. *Marquis de Colbert*.—A very beautiful variety.

*L.-C. Gladys*.—A comparatively dull and insignificant variety.

*Laelia harpophylla* and *L. praestans* var. *aurea*.—The former extremely well known, the latter extremely pretty.

*Odontoglossum tripudians*.—A not very ornamental variety.

*Phalenopsis leucorrhoda*.—Somewhat resembling *P. schilleriana*.

*Galeandra Beyrichii*.—A variety with green flowers, with a white lip.

*Rhynchostylis retusa*.—A dense pendulous raceme of small white flowers with rosy lip.

*Sophocattleya Nydia*.—A much enlarged *Sophonitis*. W. E. GUMBLETON.

## ALPINE FLOWERS AT HOME.

BESIDES the weedy plants found on meadows below the Untersberg, near Salzburg, are, of course, a number of highly interesting perennials, the more noteworthy being the always interesting *Arnica montana*, owing to its well-known medical properties, showy golden yellow flowers, and hairy foliage; *Astrantia major*, a large flowering form of *Arabis alpina*; *Anthericum ramosum*, with pretty white Lily-like flower; *Anemone ranunculoides*, with pale yellow flowers, and *Hepatica triloba cœrulea*, but not as fine as the Central German variety, nor like the Pyrenean form; the pretty shrub *Andromeda polifolia* and *Actæa spicata*, usually not left out of any collection on account of its ornamental foliage, flowers, and berries. Of the charming *Gentianas*, the large flowering *G. acaulis*, with its handsome deep blue flowers, is seen wherever the long grass permits its growth. In very low places, boggy or wet the whole year, grow an abundance of pretty and interesting plants. The showy *Gentiana Pneumonanthe* with its tufts of wiry stems and long pale blue flowers; several kinds of Cotton-grass, the dwarf *Eriophorum alpinum*, ascending to heights of 6,000 feet; *E. angustifolium*, *E. latifolium*, *E. triquetrum*, and *E. vaginatum*. Some of these are also British plants belonging to the most interesting of the large order Gramineæ; of the interesting *Sundews* or *Drosera*, the greater number of North European kinds are here represented—*Drosera intermedia*, *D. longifolia*, *D. rotundifolia*, and *D. obovata*. I believe the latter is a little known plant.

Of *Primulas* the only ones in evidence are *P. farinosa*, a fine tall-growing dark rosy red flowering form, *P. officinalis*, and *P. elatior*. *Spiræa Aruncus*, a well-known plant growing here in company with the bog *Spiræas*, *S. Filipendula* and *S. Ulmaria*, ascends to heights of 5,000 feet. The stagnant ponds are full of such plants as the pretty *Veronica Beccabunga*, *Potamogeton lucens*, *P. nutans*, *P. perfoliatus*, and others, and round the margin one sees the showy Grass of Parnassus, *Parnassia palustris* with its large erect white flowers.

As soon as we leave the more or less wet meadows and reach higher ground, gradually ascending, we follow at first the road, quitting it afterwards for a path on the north side of the mountain.

The flora in open woods of tall Pines,

Birch (*Betula alba*), Acers, such as *A. platanoides* and *A. pseudo-platanus*, the Beech (*Fagus sylvatica*), the common Ash (*Fraxinus excelsior*), the under-wood mostly of *Daphne Mezereum*, *Andromeda polifolia*, the pretty Clematis-like climber *Atragene alpina*, and *Clematis montana*, *Berberis vulgaris*, *Sambucus nigra*, and the charming coral-red berried *S. racemosa*, *Cornus sanguinea*, *Corylus* (Hazel Nut), the Heath (*Erica carnea*), both the red and white flowering forms flowering here during the early spring, while higher up often not before September, *Euonymus europæus* and *E. latifolius*; *Pyrus Aria*, often in good sized trees; *Sorbus* (the Mountain Ash), *Staphylea pinnata*, *Vaccinium Myrtillus*, *V. Oxycoccus*, *V. uliginosum*, *V. Vitis-Idea*, *Viburnum*, both *V. Opulus* and *V. Lantana*. The common Oak is usually more a shrub than a tree, but excep-



tionally fine were groups of *Pinus Cembra* and *P. Picea*.

Of perennials in these sub-alpine regions are some interesting ones, as the common Christmas Rose, *Hepatica triloba*, and *Leucojum vernum* (the Snowflake), very common, especially where the soil is good and not too dry. In places among shrubs and tall-growing grasses, grow *Lilium Martagon* and *L. bulbiferum*, both fine deep-coloured forms. Very plentiful also is the common Lily of the Valley, and the allied small *Maianthemum bifolium*, *Pyrola rotundifolia*, *P. uniflora*, and *P. secunda*, pretty evergreen low-growing plants, with bell-shaped, white, rosy tinted flowers, grow usually in deep, shady, and damp spots. *Corydalis cava* and the rare white flowering form (*alba*), and the tall, very graceful, willowy *Epilobium angustifolium* grow almost everywhere in sun or shade. *Gentiana asclepiadea* grow here from 2½ feet to 3 feet in height. Unfortunately, it is more or less difficult to cultivate unless established plants are procurable. The showy *Cephalanthera rubra*, growing often over 2 feet in height, with large magenta-purple flowers, is next to the common Lady's Slipper (*Cypripedium Calceolus*), the finest Orchid in these regions. Less common seems to be *C. ensifolia*, a very easily cultivated plant, and *C. pallens* has, like *C. rubra*, large flowers, but whitish in colour. *Cypripedium Calceolus*, once very common, is more or less rare, owing, no doubt, to travellers tearing up the plants when in bloom. There are fewer rare Ferns than might be expected. Of Mosses one can see *Lycopodium clavatum* and the neat little *L. helveticum*, and *Asarum europæum*. All are well adapted for all positions, either damp or dry, on the mountains or in the plains. As we ascend higher the trees, which are giants, grow dwarfer and dwarfer until they disappear altogether.

G. REUTHE.

### PYRUS SINAICA.

THIS is one of the few species of *Pyrus* worth growing for its leaves alone, for throughout spring and summer the silvery appearance of the foliage makes it a conspicuous object in the garden. It is a native of Asia Minor, and is stated to grow to a height of 20 feet, a height which it seldom attains under cultivation. As a rule it makes a small, bushy-headed tree of stunted appearance, the branches being short jointed and arranged closely together. The leaves are small, the blades being about 2 inches long and half an inch wide. When young they, together with the young wood, are covered with a silvery tomentum; this with age disappears, but a greyish hue is still retained. The flowers are borne in small, dense heads in April, and are white in colour. It belongs to the section of the genus which is characterised by pear-shaped fruits, the fruits being small, green and hard. Another white-leaved *Pyrus* of very distinct appearance is *P. salicifolia* from the Levant. W. DALLIMORE.

## TREES AND SHRUBS FOR ENGLISH GARDENS.

### THE HARDY HEATHS.

(Continued from Vol. LXI., page 432.)

**E**RICA CILIARIS. — Although in gardens that are afflicted with the smoke and fogs of London this Heath may not always be satisfactory, in the purer air of the surrounding counties it is a most charming shrub. In some of the old Oak-bearing country in Sussex, for instance, it succeeds to perfection. It is a native of Britain, but is, I believe, confined to Cornwall and Dorset in England, and to Galway in

Ireland. It has long, slender, prostrate stems, from which spring erect flower-bearing branches. The flowers are borne in a long raceme, are of a rich rosy purple, and the largest individually of all the species of native Heaths. The leaves are borne in threes nearly always, and, like all the younger parts of the plant, are covered with hairs and pubescence. It flowers from July onwards.

*E. maweana*. — This appears to be a fine variety of *E. ciliaris*, larger in its leaves and flowers, even richer in colour, and of sturdier habit. It was discovered in Portugal some thirty years or so ago by Mr. George Maw, but does not seem to have spread in cultivation so much as it deserves. It was obtained for the Kew collection from Messrs Cunningham and Fraser of Edinburgh three or four years ago, and certainly promises to be a better grower there than *E. ciliaris*. The flowers are rich crimson and produced in large racemes.

*E. Watsoni* is supposed to be a natural hybrid between *E. ciliaris* and *E. Tetralix*, and was first discovered near Truro by Mr. H. C. Watson. It has rosy crimson flowers produced in a flatter raceme than that of *E. ciliaris*. In this character, as in its leaves, &c., it is intermediate between its parents.

*E. Tetralix* (the cross-leaved Heath). — This beautiful Heath is met with on most of the moors and mountain sides throughout the British Isles, being, perhaps, the most widely spread of all the true *Ericas* in this country. It is commonly known as the cross-leaved Heath, because of the arrangement of its leaves, which are in whorls of four. It is not very different in general appearance to *E. ciliaris*, being similarly downy and hairy on its young stems, leaves, &c. It differs, however, in the arrangement of the flowers, which are in a terminal umbel. *E. ciliaris* has its leaves usually in threes at each node, and of course its distribution in Britain is much more restricted than that of *E. Tetralix*. There are other minor points of difference that need not be referred to here. The cross-leaved Heath grows 1 foot to 1½ feet high, and its flowers are a bright rose. There is a white flowered variety (*alba*), and another very markedly pubescent one (*mollis*).

*E. Mackayii* (Mackay's Heath). — Very nearly allied to the cross-leaved Heath, this is, by some authorities, looked upon as merely a variety of it. It was first found in Galway in Ireland, between Roundstone Bay and Clifden. It has since proved to be a native also of Spain. It makes a charming garden



PYRUS SINAICA IN FLOWER.

plant, flowering from July to September. The leaves have the same right-angled arrangement as those of *E. Tetralix*, but the flower is shorter, broader, and of a paler rose.

*E. vagans* (Cornish Heath). — This species is one of the most useful of dwarf evergreens. It is a vigorous grower, especially when planted in good soil. I think, however, it flowers better and has more of the typical Heath character when grown in somewhat poor, sandy soil. I know, at any rate, it succeeds well in such a soil. In England it is almost or quite confined to Cornwall, but it occurs also in Ireland and south-west Europe. It is especially valuable in the garden because it flowers late. Commencing in July it keeps on till October. Its blossoms are crowded in racemes 4 inches to 6 inches long, and they are of a pinkish purple colour. The plants may be kept neater and more compact by removing the flowering portion of the shoots before growth recommences the following spring. Left to themselves, especially in soil that is at all rich, the plants are apt to become straggling and unkempt.

*E. multiflora*. — This belongs to the same type of Heath as *E. vagans*, the Cornish Heath, but differs in its much more compact habit and its shorter racemes of flowers. Although not so vigorous and showy it may still be preferred for some situations. It is a neater plant, and its lower branches have not the same tendency to become sprawling and ungainly as *E. vagans*. In other respects it is very like that species, the leaves being similar in shape and arrangement, and the flowers a



paler purple. The raceme, however, is only 2 inches or so long. *Erica multiflora* is not found in Britain, but is a native of the country to the north of the Mediterranean Sea from France to Greece.

### HARDY BAMBOOS.

BEING shrubby grasses, Bamboos belong to a type of vegetation essentially tropical in character. The family has no representative in the native flora of Britain, or, indeed, in that of Europe. It is to their forming so new and distinct a feature in our gardens that much of their rapidly-acquired popularity is due. Fifteen or twenty years ago many of the best of the sorts now largely cultivated were unknown in this country. But apart from their novelty, they have other qualities that commend them. No evergreens capable of withstanding our winters exceed these shrubby grasses in beauty and grace of form, in luxuriance of leafage, or in their bright fresh tints in winter time. Very few, indeed, equal them.

Between forty and fifty sorts of Bamboos are now in cultivation but owing to the similarity there is between several of them, and the tenderness and inferior qualities of others, not more than about twenty need be grown. They belong to three genera, viz., *Phyllostachys*, *Arundinaria*, and *Bambusa*, but in many trade lists are called indiscriminately "*Bambusa*." The following list of sorts, which, in my experience of Bamboos near London, have proved the hardiest and most beautiful, may be of use to those forming new plantations: *Phyllostachys Henonis*, *P. viridi-glaucescens*, *P. flexuosa*, *P. nigra*, *P. boryana*, *P. sulphurea*, *P. Marliacea*, *P. ruscifolia*, *P. Castillonis*, *Arundinaria nitida*, *A. japonica*, *A. auricomma*, *A. fastuosa*, *A. Simoni*, *A. Fortunei*, *A. anceps*, *A. Hindsii* var. *graminea*, *Bambusa palmata*, *B. tessellata*, and *B. marmorea*.

It must be observed that Bamboos are somewhat particular in regard to position. They need, almost more than any other class of evergreens do, shelter from north and east. When planted in positions fully exposed to winds from those quarters they always remain stunted and unsatisfactory, and for several months in the early part of the year their foliage is usually brown and withered. A merely low temperature they do not mind so much. It is one of the commonplaces in horticultural practice that evergreens will stand many more degrees of frost in a still atmosphere than in a moving one, but few of them emphasise its truth so strongly as do

Bamboos. The remarks, therefore, that have previously been made as to the necessity of a shelter belt on the north and east for the tenderer evergreens apply with especial force to these plants.

The second important requirement is a rich, moist, open soil. Bamboos are gross feeders, and their full beauty can only be seen when they are in vigorous, even luxuriant health. An unhealthy Bamboo is not even passable—it is an eyesore. Many of the species spread rapidly by means of underground stems, and for this reason they ought never to be planted promiscuously. Each plant, or, if they are grouped, each species, should stand well apart. Some sorts, like *Phyllostachys viridi-glaucescens* and *P. Henonis*, need abundant



ODONTOGLOSSUM CRISPUM ARDENTISSIMUM.

(Shown by M. C. Vuylsteke, Ghent, at the Royal Horticultural Society's Temple Show. It then obtained a first-class certificate.)

room to allow of their free and graceful development. This can only be accomplished where the outer stems have a chance to bend outwards. All Bamboos should be transplanted in late spring. Winter and early spring are the worst times for disturbing the roots.

With even the best conditions that can be provided under the average climate of Britain, Bamboos occasionally become unsightly between February and May. This unsightliness is due to the browning of the foliage by a more than usually severe winter or to a prevalence of bitter east winds in early spring. It is rarely that the stems are injured; the underground portion of the plant never is. But the scorched aspect of the leaves, when it occurs, is very objectionable, especially as it is so apparent at a time when all other vegetation is bursting into fresh green leaf. On account of this defect Bamboos can never be planted promiscuously in gardens as other evergreens, like Laurels and Rhododendrons, are. For single specimens sheltered corners ought to be found.

Where Bamboo groves are desired—and such groves are amongst the most beautiful of all the features possible in English gardens—a secluded dell or wooded ravine is the ideal spot for them. Briefly, what I wish to impress

on readers is that Bamboos should not be given positions where they come constantly before the eye; for, however beautiful they may be for the greater part of the year, they are liable at times to be objectionable to the eye, and one is apt to become impatient of their presence if it be too evident at such times.

W. J. BEAN.

(To be continued.)

### ODONTOGLOSSUM CRISPUM ARDENTISSIMUM.

ONE of the most striking of the many new Orchids exhibited at the Temple show of the Royal Horticultural Society was that represented in the accompanying illustration. It was sent by M. C. Vuylsteke, Ghent, and received a first-class certificate. As may be seen, the flowers are of good form, and the sepals and petals are heavily blotched with claret-red. It is undoubtedly one of the best varieties of *Odontoglossum crispum* that continental growers have recently sent over to our exhibitions.

Many beautiful forms of *O. crispum* have been shown this year at the meetings of the Royal Horticultural Society, and interest in such beautiful products as *ardentissimum* is undoubtedly increasing. The blotches are very large and rich in colour. The illustration does not represent the flowers life size, but slightly smaller.

### BRITISH HOMES AND GARDENS.

#### COTEHELE.

THE slow tide of the river Tamar, which divides the southern portions of the counties of Devon and Cornwall, is, with its tree clad heights and vistas of winding waters, bountifully dowered with natural beauty, but although Nature has, without doubt, been the chief factor in investing this lovely region of the "west country" with its all-pervading spirit of peace and restfulness, the hand of man has done much in adding human interest to Nature's entrancing picture in raising here and there along the Tamar's sides noble residences, about which old-world legends cluster thickly. As one ascends the river from Devonport and follows its tortuous course between the wooded hills, the grey towers and terraces of castellated Pentillie, looking downward from their heights over the



tree-tops upon a circling river-reach, meet the eye. Passing upward by Halton Quay from Pentillie Castle, the narrowing river reflects the dense, hanging woods of Cotehele, one of the most interesting of the many historical home-steads of the west. The property of the Earl of Mount Edgcumbe, it is a well-preserved example of the old fortified dwelling of 400 years ago, portions of the main building and the entrance gateway being of considerably greater antiquity. Among the many legends connected with Cotehele, perhaps the most thrilling has for its hero a certain Richard Edgcumbe, who, being suspected of disloyalty, was pursued to Cotehele by the emissaries of "Crockback," and so closely hunted that he took refuge in the woods overhanging the Tamar. Being followed to this retreat he, in endeavouring to escape, dislodged a rock, which fell with a resounding splash into the water, followed by his hat, torn from his head by a branch. His pursuers, close at his heels, were quickly on the spot, and, seeing his hat in the river, concluded that the noise they had heard was his body falling into the Tamar, and that he was drowned. They thereupon abandoned the chase and Richard fled to Brittany, to return, however, and fight at Bosworth Field, where he was knighted by Henry. On the site of his miraculous escape Sir Richard erected a votive chapel, on a tablet within which is carved the account of his deliverance from capture.

The old, many-gabled, Ivy-covered house is most picturesque, and as one gazes at it one becomes conscious that every stone is eloquent of an eventful past. Its effect is heightened by the four stone terraces with their central flights of low, lichen-stained steps, flanked by rough buttresses crowned with artistically-fashioned earthenware flower-baskets. The gardens are filled for the most part with old-fashioned flowers in keeping with the antiquity of the house. In the best gardens of Cornwall, bedding plants, much to the satisfaction of the lovers of natural as against artificial methods, have little place, and this is particularly the case at Cotehele. Eleven years ago the trees on this estate suffered severely from the disastrous blizzard of March 11, in company with those in the neighbouring properties of Pentillie, Maristow, Mount Edgcumbe, and others, but Nature is such a rapid repairer that no one who did not know Cotehele before the blizzard would imagine that it had lost hundreds of its finest timber trees. If in any one special point the gardens of the south-west compare favourably with those in more northern districts it is in the matter of flowering shrubs, many tender subjects flourishing that refuse to grow except under glass shelter elsewhere. With many of these Cotehele is well supplied, but it is perhaps for its beds of simple flowers, its Cabbage Roses, Pinks, Carnations, Rockets, old Pæonies, and such like blossoms of a bygone day that its gardens are chiefly interesting. Rhododendrons grow admirably, and looking in the springtide from the summer house across the pond to where the swelling hills recede into the blue

distance, the Rhododendrons on the further side of the water, masses of flower, form a fitting frame to the picture. A large fruit-growing industry is carried on around Cotehele, the earliest outdoor Strawberries of the year in the London market coming from the steep hillsides. The punnets are made by the village children in the winter time, and the peasant communities are enabled to add materially to the comfort of their lives by the production of their early Strawberries.

S. W. F.

### THE UNHEATED GREENHOUSE.

XII.—AUTUMN PERENNIALS UNDER GLASS.

It is easy enough to have plenty of bright flowers under glass in late autumn when an average temperature of 50° to 60° Fahrenheit can be

maintained, but when there is no heating apparatus, or merely a portable one, which is strongly to be recommended in certain cases, plants must be chosen warily. Chrysanthemums, no doubt, are the mainstay of all gardeners for conservatory decoration at this season, and are as available, being hardy perennials, for unheated as for heated houses. No one would wish to be without such old, but fine, stand-by varieties as Mme. Desgranges and its bright-coloured sports, Source d'Or, Mlle. Lacroix, Bouquet Fait, Cullingfordii, and others, not forgetting some of the delightful single forms, grown naturally as free flowering bushes. For our special purpose, early and mid-season varieties are more to be recommended than late ones. It is true that nothing else can quite take the place of Chrysanthemums in greenhouse decoration. They are so universally grown, however, and it is so easy to get information on all points with regard to them, that it will be more profitable to enquire



IN THE GARDEN AT COTEHELE, CORNWALL.



what other flowering plants are attainable from Michaelmas to the end of the year.

Naturally we think first of the few late-blooming perennials which, though quite hardy, are likely, out of doors, to have their flowers either crippled or wholly destroyed by early frosts. One such, often grown in pots on this account for the greenhouse, is *Stokesia cyanea*, a fine composite, with blue Thistle-like flowers. There are two varieties—a fact which has only recently been made known—and as one of these is summer flowering care should be taken to get the right sort for late work. *Aster grandiflorus*, the latest of the Michaelmas Daisies, is sometimes treated in the same way, as it seldom perfects its large blue flowers in the open border. *Senecio pulcher* is a good late-blooming Groundsel, with red-purple flowers, which may be put into the same list. It is interesting to grow it from inch-long root-cuttings in early autumn, like *Seakale*, thus securing fresh plants every year, and the best effect is made when several plants occupy a broad deep pan to form a clump. The colour of the flowers, unfortunately, is one that contrasts badly with most others, which is a drawback. A very good low-growing plant belonging to the same genus, *Senecio Kamperi*, may be mentioned here, though it is somewhat more tender. It has broad handsome foliage, splashed with white and a touch of pink, and is worth growing both for its leaves and flowers. It bears a loose cluster of large yellow Daisy-like flowers, and is more often seen in Belgium and elsewhere on the continent as a window-plant than with us. This is not to be confused with *Farugium grande*, with round yellow spots on its green Coltsfoot-like leaves, which is, perhaps, a greater favourite with English folk than it need be.

*Chrysanthemum serotinum*, better known amongst herbaceous perennials as *Pyrethrum uliginosum*, rears its great height and holds up its flowers high above our heads in the autumn garden, unless the precaution is taken of heading down the plants in early June. These tops may be put in as cuttings and make excellent little pot plants, proving very useful in the greenhouse during October and November. The new Japanese species of Winter Cherry (*Physalis Francheti*) is striking and handsome for late autumn when grown with several stems and hung with its vivid orange-scarlet capsules. It is much finer in every way than the old *P. Alkekengi*. The first frost makes the leaves drop out of doors, but with the protection of glass we get foliage with the brilliant lanterns, which is a great gain. Another hardy

Japanese perennial—*Tricyrtis hirta*—which is, strictly speaking, a miniature Lily, with a short, creeping root-stock, makes an admirable late cold greenhouse plant. Its pretty mauve-white flowers, spotted with lilac or purple, are very Orchid-like in their effect, and are borne pretty freely.

Carnations of the self-coloured Grenadin type, which are chiefly white and scarlet of various shades, are invaluable for autumn flowering. If the object is to ensure really good flowers it is a good plan in the first instance to raise a batch of seedlings from reliable seed of the best strain, which should be allowed to flower the first season in the open ground. Many variations will occur amongst them, and a strict selection of the finest must be made for future stock. Any tendency to throw up flower stems in the spring must be kept in check, and layers should be laid early in the season, before midsummer if possible. When thoroughly rooted, which will be in about six or eight weeks from the time of layering, they should be transferred to 5-inch pots, and it must be borne in mind that Carnations, of all plants, like very firm potting to ensure good flowering. If all goes well flower stems will soon begin to appear, and a cold frame will be sufficient to bring them on until they are ready for the greenhouse.

For hanging baskets or pans raised to a position near the eye, a creeping Himalayan perennial, familiarly known as the Shanrock Pea (*Parochetus communis*), which flowers naturally in October and November, is extremely pretty, both in its twin Pea flowers of pale stone-blue and its large trifoliate leaves. It is also more satisfactory to flower under glass than out of doors, even on the most sheltered rockery. For the same purpose two Italian Bell-flowers (*Campanula fragilis* and *C. isophylla alba*) are invaluable, the latter being the more easy of the two to grow into a fine specimen. A little early pinching back of the shoots will help to retard their flowers till late autumn, when they are very welcome. Though these are both natives of sunny Italy, they prefer partial shade when under glass. A fine new blue variety, *C. isophylla Mayi*, named after its raiser, has recently been introduced.

So far, mostly quite hardy plants have been under consideration, but there are a good many half-hardy perennials which may be used, with a little careful preparation beforehand, for the autumn greenhouse. Two or three dwarf species—not varieties—of *Dahlia*, for example, come in very well to fill up a gap at this late season.

*D. gracilis*, a slender growing Mexican plant, with bright scarlet single flowers and finely cut leaves, is good and showy, only care must be taken to secure the true species, and not some coarse growing seedling masquerading under the name. *D. glabrata* (syn. *D. Merckii*) has smaller lilac or white flowers, but produced very freely; while the Black Dahlia, so called (which is not really a Dahlia at all, but *Cosmos diversifolius*), makes a good foil with its dark brown velvety petals. These can be raised from seed, and answer best if they are grown in pots plunged out of doors during the summer, and all the strength thrown into the growth by the removal of all buds until the plants are wanted to flower. *Arctotis arborescens*, a very beautiful, but rather tender, perennial, often used for summer bedding, comes under this class. It is somewhat bushy in habit, and likes plenty of room, but it is well worth taking any pains to get its large creamy-white flowers in autumn. These are tinged with pink on the under side of the petals, and the fine grey-green foliage sets them off to great advantage. How true it is that no greenery goes better with any flower than its own leaves. Another species, *A. aureola*, has glowing orange flowers, which it produces till quite the end of the year out of doors in the Isles of Scilly, and would probably answer as well as the larger-growing *A. arborescens*. Alas! they have one fault, they close in dull weather.

Paris Daisies, both white and yellow, grown from spring-struck cuttings, make delightful autumn plants when plunged out of doors during the summer, and the points of the shoots carefully pinched out to make them bushy. There is something so innately cheery about them that, common as they are, they may not be left out of our year-end programme. Several of the hardier *Salvias*, treated in the same way, make fine and useful plants. They are so quick growing as a rule that, after the cutting stage is passed, they require several shifts during the season, until finally they reach a 9-inch pot, in which size they should flower well. Severe pinching is also necessary to make them compact, but in any case they take up more room than most plants. For a strictly cold greenhouse it is better to be content with such species as *S. Pitcheri* (syn. *S. azurea grandiflora*), *S. coccinea superba*, *S. Greggii*, crimson, *S. hians*, purple with spotted lip, and *S. patens*, well known with deep blue flowers, of which there is also a white form, rather than the more tender species. In a good season, however, and with the temporary help, on occasion, of a heat radiator, *S. splendens*, with its brilliant scarlet spikes, *S. calicalifolia*, deep blue, *S. gesnerifolia*, and *S. rutilans*, but with Pine-apple scented foliage, may be successfully grown, though they need a genial temperature of at least 50° to develop their flowers satisfactorily. The cultural treatment of both hardier and more tender species during the summer is identical.

The subject of retarding flowering plants by refrigeration, which is coming so much into vogue, can hardly be passed over without some reference here. It will be quite possible in the near future, if it be not so already, to procure many different kinds—perennials (such as *Astilbe japonica*, better known as *Spiraea*), bulbs, represented by several species of Lily, and even hardy deciduous shrubs, like *Azalea mollis*—ready prepared to flower in the autumn greenhouse. These will, probably, require special care in the way of very gentle forcing to bring them to perfection after the severe ordeal to which they have been subjected. But the amateur who loves his plants, and desires to know more of the unstinted variety which the garden of the world offers to the seeker, may do better than to hark back to spring when so great a wealth of autumn flower is within his reach. There is more show of reason for helping autumn and spring to clasp hands over the sleeping form of winter,

K. L. D.





## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

## EUCALYPTUS GUNNII.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—As many of your readers are interested in this species which appears to be grown in all parts of England and Scotland and to prove perfectly hardy everywhere, a few particulars as to its range and variation in its native country will no doubt be acceptable.

Mr. J. H. Maiden, Curator of the Botanic Gardens, Sydney, has kindly sent me a copy of a paper upon the species, from which I glean the following facts.

It ranges through Tasmania, the original type being from the cold mountain districts, but it also occurs on the lowlands.

In Victoria it is found on the summits of the higher mountains; and in New South Wales on many of the mountains up to 5,000 feet or 6,000 feet above the sea-level; but in both colonies varieties are found in the lowlands. It is also found in the eastern part of South Australia, but not in West Australia, as has been erroneously stated owing to a mistake of one of the older writers.

Mr. Maiden thinks that this species is the most protean of all the Eucalypti, and he gives a list of twenty varieties of it which have been described by various botanists as distinct species. Hardly any of its characters are constant. In stature, colour and surface-texture of the bark, shape and colour of the leaves, shape of the fruit and of the operculum, and form of the inflorescence, it varies greatly, but there are always intermediate forms connecting one variety with another indicating that all are the varying forms of a single species.

Still more extraordinary is the very wide range in stature of the various forms in different localities. In the mountains it occurs generally as a shrub or small tree, reaching to about 40 feet in sheltered positions, while in the lowlands it often attains to a large and sometimes a gigantic size. One of the forms of the variety, *E. Stuartiana*, is said to be near 100 feet high in the south-eastern ranges of Australia, where it is called "White Gum," but another writer calls this same variety a "Red Gum," and says that it attains "an enormous size in Victoria, perhaps only surpassed by the *Eucalyptus amygdalina* and the Karri of West Australia." But the following account by Rev. T. J. Ewing, in the Proc. of the Royal Society of Van Dieman's Land, 1851, is both precise and extraordinary. Speaking of the "Swamp Gum" of Tasmania, he says:—"One about 40 yards from the biggest was 60 feet in circumference at 4 feet from the ground, and at 130 feet must have been fully 40 feet round; it was without buttresses and went up in one solid massive column without the least symptoms of decay. . . . The largest we measured was, at 3 feet from the ground, 102 feet in circumference, and at the ground 130 feet. We had no means of estimating its height, so dense was the neighbouring forest, above which however it towered in majestic grandeur." On this Mr. Maiden remarks:—"The above magnificent trees were in the vicinity of the North-West Bay River, and if correctly described as Swamp Gum are probably *E. Gunnii* var. *acervula*."

That any variety of *E. Gunnii*, always considered to be one of the smaller species, should

be also one of the largest, and not only so but one of the most gigantic trees in the world, equalling the finest specimens of the Californian *Sequoia gigantea*, seems very remarkable, but the same variety occurring on the coast of New South Wales is described as being "one of the largest trees of these parts," which renders it quite possible that the enormous Tasmanian specimens are truly identified as forms of the same species.

The local names by which the varieties of *E. Gunnii* are known are even more numerous and more puzzling than those of the botanists. "Red Gum," "White Gum," "Black Gum," "Swamp Gum," "Blue Gum," "Hickory," "Apple," "Cabbage Gum," "Yellow Gum," "Ribbony Gum," "Spotted Gum," and "Candle Bark" are some of these, and are a good indication of the uselessness of such names, which only tend to confusion and error.

Mr. Maiden's paper is evidently written only for botanists, and especially for Australian botanists; hence it is very technical, and many details which would be of great interest to English cultivators are only incidentally mentioned. Two points may be here referred to. Some of the forms are said to produce "manna," and the following is quoted as to an exhibit in the Paris Exhibition of 1855 by Mrs. John (afterwards Lady) Hay, as being "manna" from a tree believed to be *E. Gunnii* var. *rubida*. "It is found in considerable quantities in many tracts, generally rather upland, scattered under the trees from which it exudes." But nothing is told us of the nature of this substance, whether it is edible or is used in any way by Europeans.

In Tasmania trees of the type first described by Sir Joseph Hooker are called "cider trees," and to one specimen collected by Mr. Gunn is appended the note—"A tree yielding rich cider." But again we are not told how this cider is made, or whether it is really used as a beverage by residents in Tasmania. It would be very interesting to obtain seed of these "manna" and "cider" yielding trees from the greatest elevations at which they grow; and if they have any of the hardy character of the varieties usually grown in this country it would give an additional charm to the cultivation of *Eucalyptus Gunnii*.

Parkstone.

ALFRED R. WALLACE.

## THE OTAHEITE ORANGE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—You gave a fine illustration of this Orange, on page 130, vol. lix., of THE GARDEN, which attracted my attention at the time. That drawing of Miss West's represented the fruit, leaves, and twigs accurately. I now send you a photograph of a plant in full fruit, which has been greatly admired in my window.

It is so seldom that we find the variety illustrated that I trust you will find the print suitable for reproduction. This plant is six or seven years old, and was received from a Pennsylvania florist by mail when very small. Its present size can be judged



THE OTAHEITE ORANGE AS A POT PLANT.

(From a photograph sent by Mr. H. Hendricks, of Kingstown, N.Y.)

by the 8-inch pot. Two years ago it matured four fine specimens. It has now thirteen Oranges, as will be seen, all of which are perfect and fully ripe. They set late last autumn after a shower of blossoms, and have been growing through the winter. The colour of the fruit is a dark, rich orange, which was assumed even before the fruit was half grown. This, in contrast with the large dark green leaves, makes a very pretty shrub indeed. This being the season for new growth, some of the older leaves have dropped off, the heavy crop of fruit having doubtless retarded the growth somewhat. Soon the fresh pink buds will appear again, and anon the charming white, fragrant blossoms with the wealth of new leaves and young shoots, which, once started, grow with astonishing rapidity.

I really know of nothing more beautiful or desirable in the way of a small ornamental shrub for the window, garden, or house, than this little Otaheite Orange. A large part of the year it is in fragrant bloom, and the flowers are fully as large and sweet as those produced by the standard varieties of the Citrus family. The fruit never drops when fully formed and healthy, but will hang on all through the year, if desired, for it has the habit of the Citrus family in general in retaining the fruit even until all the juices are absorbed by the tree and the rind can be squeezed together like a sponge, as though Nature said, "Well, if they don't want this luscious fruit I'll return its juices to the tree, where it may be worked over into new leaves, growth, and fruit." For Nature is an economist; nothing is ever lost in her domain. I must, however, differ with your correspondent in regard to the flavour of this little Orange. He says it is not good to eat, and that it is grown "only to be looked at." Now, speaking from my own experience, I must say it is very sweet and good when fully ripe, juicy, and pleasant, without a trace of bitterness or astringency. The pulp parts very readily from the skin, it has few or no seeds, and in most respects it is very much like the Mandarin type of Orange as it grows in our State of Florida. A little kid glove gem, and an ornamental shrub of charming value, it succeeds well in the house with ordinary care, the scale insect being its only enemy, and that is easily controlled.

The precise origin of this Orange seems somewhat obscure. I have been unable to get information on this point, and would be very glad if some reader of THE GARDEN would tell us where, how, and when it was first produced, or why it is called Otaheite. It is comparatively new in this country, I think, and



not very extensively grown even now. It seems to have been brought into France as early as 1815, but I cannot find where it came from, nor who brought it there. Its dwarf habit and comparative freedom from thorns has led to its use to some extent as a stock upon which to work standard table sorts for ornamental and indoor purposes.

As to the size of the fruit shown in this picture, I might say that the largest specimen measures  $2\frac{3}{4}$  inches in diameter and the smallest about  $1\frac{1}{2}$  inches. In the larger specimens the skin is very rough.

Kingston, N. Y.

H. HENDRICKS.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### CROTONS.

**A**S these root and get pot-bound they should be potted on, using a porous compost of three parts fibry loam, one part leaf-soil, with a liberal addition of charcoal and coarse silver sand. Give thoroughly efficient drainage, as a sour soil is fatal. The soil must be firmly rammed into the pots and the plants placed in a warm and moist atmosphere in order to produce the rich colour in the leaves, which is the chief attraction. They require to be kept close to the glass and receive no shade whatever. Large specimen plants not required for growing on may be used for the cold conservatory. They are amongst the finest things that can be used among Palms and flowering plants, and will stand a long time in a cool house in summer. The Croton is a plant with a strong constitution, and will survive where hardier ones fail. Here we grow them in a mixed flower bed out of doors. With many similar plants it is a question of constitution rather than temperature.

#### DRACENAS.

Similar treatment is also necessary in every detail. The potting compost should be three parts fibry peat to one of loam. Every care should be taken to produce good plants, as they will make fine ornamental subjects during the winter, and are serviceable at that season for rooms or for the dinner table.

#### MIGNONETTE

for autumn flowering should be sown in  $4\frac{1}{2}$ -inch or 6-inch pots. A light, rich, open compost should be used. Sow about a dozen seeds in each pot and place in a cold frame until the seeds germinate, after which keep them as hardy as possible and afford plenty of light. Thin early to five in a pot. Several strains are recommended. Miles Spiral and Machet are good varieties. *Statice profusa* and allied varieties that have done flowering should be repotted in a mixture of rich fibry loam, leaf-soil, and sand, and kept in a warm, humid temperature until growth recommences. These plants, although almost perpetual bloomers, are often much neglected and seldom have proper attention given to them; they should be general favourites, and if care is taken in watering there will be little difficulty in their cultivation.

#### CHINESE PRIMULAS AND CINERARIAS.

These should have plenty of air, and on very hot days damp the shading material with cold water. The plants should have plenty of room between them. They enjoy moist surroundings, and do better if the ashes are kept well damped. It will be well now to leave the lights off the frames at night, as the dew moistens the foliage. Frames facing north are especially suitable for Cinerarias.

#### CALLAS.

Previous instructions having been followed these plants will be sufficiently dried off to be repotted. Use a fairly rich soil, good, sound, fibry loam, and a liberal quantity of dried cow manure, though decayed horse manure will form a good substitute. The plants should be potted firmly and watered with care until growth is perceptible. Give weak

manure water at frequent intervals as soon as the pots are filled with roots. This will obviate the necessity of using large unsightly pots.

JOHN FLEMING.

Wexham Park Gardens, Slough.

### THE FLOWER GARDEN.

ALTHOUGH good strains of the ordinary hybrid Pentstemon are so popular in our flower gardens, and in the autumn months are so conducive to the beauty of the herbaceous borders, comparatively few of the highly ornamental

#### PENTSTEMON SPECIES

are cultivated, which is surprising when one considers the beauty of some of them. One particularly, *P. pubescens*, no garden should be without, for wherever it is seen growing it is sure to elicit admiration. It may be grown in the border or in the rock garden. Somewhat similar in appearance to *P. barbatus*, but much larger and of better habit, *P. pubescens* has numerous stems from which spring rosy scarlet and yellow flowers in profusion. Its free and easy habit of growth necessitates no staking. Seed sown now will produce good flowering plants next summer, though plants established three or four years are the most effective. The seed may either be sown in boxes and stood in a cold frame or in outdoor border. I practice the former, and when the seedlings are strong enough prick them out into a well-prepared border, where they remain over the winter, and in the spring are ready for their permanent quarters.

#### PENTSTEMON SPECIOSUS

is another very handsome kind, growing 4 feet to 5 feet in height, with clusters of blue flowers with a reddish tinge. It is best treated as a biennial. Another kind, somewhat like this, is *P. grandiflorus*, but it has larger flowers of a lovely pink, and at the present time is at its best. It, too, should be treated as a biennial. *P. murrayanus* is a pink flowering one, and with me has grown to the height of 6 feet or 7 feet. Not only are the flowers particularly handsome, but its foliage and habit of growth are attractive. I saw it a little earlier than this in boxes, and when the seedlings are large enough pot them up and winter them in frames. In the spring they are planted out into a warm sunny border, where they make a grand show in the summer. *P. jeffreyanus* belongs to the blue flowering section, and is beautiful during a long period in the summer months. It is hardy, but still is best treated as a biennial. *P. procerus* is another blue flowering one, and being dwarf, with a creeping habit, is splendid for the border or the rock garden. Its complete hardiness makes it a desirable plant for every flower garden, and its earliness of flowering, in comparison to the other Pentstemons, is also one of its recommendations.

HUGH A. PETTIGREW.

Castle Gardens, St. Fagans.

### THE KITCHEN GARDEN.

#### MULCHING.

THE great value of thoroughly mulching between growing crops during the past spell of hot scorching weather has been fully demonstrated, and one may easily see the beneficial effect it has had where it has been well practised. I would strongly advise all who have not done so to lose no time in doing this, especially to late crops of Peas, Beans, Cauliflowers, Brussels Sprouts, and the like. Nothing is better for the purpose than long stable litter, but failing this old hot-bed manure, leaf-soil, or even short grass may be used. It will not only materially save labour in watering, but it also does much to conserve the moisture, keep the roots cool, and the growth will be more vigorous and healthy. Waterings, both at the roots and overhead, are best given during late afternoon and evening; give thorough drenchings, as small dribbles are of little use. Peas in all stages of their growth should have copious supplies of manure water, either the drainings from the farmyard or house sewage, and to obtain extra fine pods for exhibition the growth should be stopped after about

the fourth flower is open, and the pods thinned to a reasonable number, selecting the most shapely, which should be looped up and held in position with broad pieces of bast. Syringe freely with tepid water just as the sun is leaving them, and any pods which are quite full and are wanted in a few days' time should be carefully cut, the ends placed in water and stored in a cool place, where they will keep quite fresh.

#### LEEKS.

The blanching of these for exhibition must be carefully and systematically carried out. Endeavour to get the desired length as soon as possible, and when 12 inches or 13 inches is attained the paper collar should be removed, when they will, if kept well supplied with moisture at the roots, quickly begin to swell. Good Leeks should be of proper proportions, which means that specimens 13 inches in length should be as thick as one's wrist. The plants should be well earthed up, using poor soil, or the roots will, instead of descending, come to the surface. It is a capital plan to fix 2-inch drain pipes to convey water direct to the roots, also damp the tops over every evening in hot weather.

Green fly and black fly are very troublesome in many districts this season, especially among Carrots, Marrows, and Celery, but they may be easily eradicated by syringing the foliage with soft soap and water in the evening and wash off the following morning.

#### BETROOT.

The earliest sown globe shape varieties, which are extremely useful for salads, should not be allowed to remain in the ground after they have made medium-sized bulbs or they will become stringy and of little value. Lift and store in sand or ashes under a north wall, where they will last in good condition for many weeks. The later sown long-rooted kinds should be thinned, and the surface soil kept constantly stirred with the Dutch hoe. During showery weather apply small doses of artificial manure and soot in equal proportions.

#### POTATOES.

Many of the early varieties will now have completed their growth, and should be lifted and stored, choosing a fine day for the purpose. Unless Winter Greens have been planted between them the ground can be utilised for other crops, such as Spinach, Turnips, Lettuce, and Endive. Ridge Cucumbers should have their growths thinned and regulated, and thoroughly syringe with insecticide to rid them of all insect pests. Keep the roots well supplied with water, and when in full bearing manure water ought to be given.

#### CAPSICUM AND CHILLIES

may now be arranged in the open, in a sheltered sunny position, and stimulants given freely, when a good crop of fruit is assured.

E. BECKETT.

Aldenharn House Gardens, E'stree, Herts.

### THE FRUIT GARDEN.

#### STRAWBERRIES.

THE plantations of these should be examined when the crops of fruit are gathered, and the condemned ones, such as have been upon the ground two years, or those that were planted for the purpose of yielding only one crop of large fruit, should be cleared off the ground, which may then be prepared for Broccoli or some other vegetable. Plantations that are intended to remain for another year must on no account be neglected, as the quality of the next season's crops depends greatly upon the way they are now managed, which should be with getting strong crowns. Consequently, first remove their netting protectors, and clear them of weeds, exhausted foliage, and runners. See also that the plants do not suffer from want of water, and give necessary nourishment in the form of liberal applications of liquid manure or other suitable stimulants. The plantations of late varieties, especially if planted upon north borders, together with such perpetual bearers as St. Antoine de Padoue and St. Joseph, will together carry on a supply of fruit for a long time, provided they have been mulched and are properly watered. This is all the more necessary in light soils.



## PEACHES AND NECTARINES.

The demand for water at the roots of these trees greatly depends upon the character of the soil they are growing in, and it should be supplied accordingly. In cases, however, where the soil is naturally light and porous it is easy to err in not giving sufficient to meet the requirements of the trees, and both they and the crops suffer in consequence. Mulching with short litter also will be useful. Growth is now active, and requires close attention to keep it secured to the walls, and the stopping or entire removal of unduly gross shoots, so that the balance of strength is maintained, must not be overlooked. Avoid crowding, and if the young growths were not adequately disbudded do not hesitate to remove the superfluous ones. If aphids are present spray the trees with Quassia Extract, and in the evening after bright days thoroughly wash the trees with the garden engine. Mildew is a virulent enemy to the Peach, and makes rapid progress if not checked, therefore should it appear at once first lightly spray the trees, and then thoroughly dust them with flowers of sulphur, and subsequently wash it off when the vitality of the fungi is destroyed.

## GRAFTED STOCKS.

Newly grafted stocks should be carefully examined, and if the scions are making satisfactory progress gradually remove the shoots that have started beneath the scions. If the situation is windy see that robust scions are properly secured, so that they are not injured by being blown out of position. As soon as the union is formed, the ties should be entirely removed or slackened as is found desirable.

## BUDDING.

This may be begun as soon as the wood is about half ripe, and damp weather is most favourable for the operation, although if the stocks are clean, young, and healthy, and good buds are selected success is almost certain, provided the operator is

an expert. The process is so simple that it is needless to fill space here by describing it. It may, however, be remarked that under ordinary circumstances it is best to leave this in the hands of nursery specialists, from whom the very best trees can be procured at quite reasonable prices.

## BLACK CURRANTS.

Once the fruit is gathered the bushes should be pruned by cutting out old exhausted branches and thinning the young shoots by shortening the weakest, leaving the strongest, which produce the finest fruit, to form the bushes. Keep the plantations free of weeds and well supplied with water if necessary, using liquid manure if it is available.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

## THE KITCHEN GARDEN.

## CUCUMBER BRITISH KING

COMPARATIVELY seldom is it that a new Cucumber is honoured by the fruit and vegetable committee of the Royal Horticultural Society with an award of merit, but the variety named British King, which was shown by Mr. S. Mortimer, Farnham, at the Temple show, and of which we now give an illustration, was fortunate enough to be thus recognised. Mr. Mortimer is inseparably associated with the culture of Cucumbers, Melons, and Tomatoes, and he has raised many good things amongst them. To his list of new varieties must now be added Cucumber British King. Mr. Mortimer obtained this as the result of a cross between Sensation and Famous, each of which has also been certificated. It is a large and handsome Cucumber of a deep green colour with black spines, and is undoubtedly destined to become a favourite variety.

## SUMMER TURNIPS.

WITH variable weather such as heat and drought it is often difficult to have a good supply of summer Turnips. In our case we largely rely upon north borders or land partially shaded by fruit trees for our early autumn supply, but much depends upon locality and situation. In the north it is not so difficult to get late summer Turnips as in the south. Many shifts may be adopted to get a crop. I once sowed a few seeds on a bed that had been dressed with salt, and here we were never troubled with the fly, so that, though I do not advise using salt after sowing, I have done so previously and saved a crop. It is also well to sow in land not recently dug, or previous to sowing the seed to well tread the

soil if the latter is at all light or sandy. I would much prefer land that had been prepared in winter than that newly dug. Another point is to sow thinly and avoid severe thinning, also to sow varieties that will stand a long time, such as the Golden Globe, Red Globe, Criterion, or the Matchless. The plants delight in being cool at night, so that any watering is best done late in the day. The land for this crop should, if possible, be on the level, so that water given may be retained longer.

A. C. N.

## MISCELLANEOUS.

## PLANTS SUITABLE FOR THE ROCKERY.

ROCKERY formation may be adapted to a variety of requirements both outdoors and under glass. Outside rockeries may be constructed of various sorts of stone so as to suit the culture of hardy plants of various kinds. We may note first hardy Ferns and Lycopods. These may all be expected to thrive well in the crevices of a rockwork formation, if the requirements of shade, soil, and ordinary care in cultivation are attended to. In small suburban and other gardens there is often ground that cannot be utilised for the growth of either vegetables or flowers; in fact, the ground would not be suitable for the development of such crops, whilst a collection of hardy Ferns, with the background filled up with dwarf-growing hardy evergreen shrubs, would not only add a new feature of interest but make a hitherto neglected spot a thing of beauty.

I will give a selection of a few of the hardy Ferns as I proceed. Ferns are not very particular as to the soil, providing it is not too retentive and does not contain too much lime; but, if otherwise, the cultivator should have a better class of soil at his disposal, such as a good meadow loam, peat soil, leaf-mould, burnt earth, and sand. Care should also be taken that the peat is well drained, because if the crowns and roots get wet in the winter there is a great danger of decay taking place. It must not be stagnant. The main secret of success in Fern growing is to keep the plants well supplied with water during dry weather. Hard water should not be used for sprinkling the foliage of Ferns during the summer, because if used too much the fronds will become coated with a deposit of lime. Use soft water therefore in all cases if practicable. The hardy Ferns I should recommend for small rockeries would comprise the following:—

Nephrodium Filix-mas, Osmunda regalis, Polystichum angulare and its varieties, Polystichum aculeatum, and the stronger forms of the common Polypodium. Those best suited for a small rockery formation are Polypodium Dryopteris, P. Phegopteris, Polypodium vulgare, Asplenium Trichomanes, and a few of the Scolopendriums. Any kind of rough sandstone formation will be suitable for the culture of these.

There is another class of plants that I would specially mention as being adapted for the outside rockery, and these are the alpine and dwarf growing varieties of hardy herbaceous plants. I would recommend the following plants as specially adapted for this work: Silene (dwarf varieties), Delphinium sinense and grandiflorum, Dianthus fimbriatus, Dielytra spectabilis, Eryngium alpinum, Gypsophila paniculata, Lychnis Viscaria splendens, Phlox decussata in varieties, Vinca minor and V. major, Achillea in variety, Auriculas (alpine varieties), Anchusa italica, Arabis alba and alba variegata, alpine Asters, Aubrietia purpurea, Epimedium macranthum, Veronica Traversii, Genista radiata, Helianthemum in varieties, Rock Cistus, Hypericum Potentillas, Tradescantia virginica, Thymes, &c. The above comprise a great variety of flowers, foliage, and growth, and will also furnish a continuous supply of bloom till late in the autumn. We must not, however, forget the Aquilegias and the taller-



CUCUMBER BRITISH KING.

(Shown by Mr. Mortimer at the Temple Show and given an award of merit.)



growing varieties of Phlox, which would prove very effective for the background.

In reference to the cultivation of half-hardy and tender Ferns, which I have not as yet mentioned, these plants would require an inside rockery for their culture. The stone specially adapted for growing to perfection the choicer greenhouse Ferns and those requiring stove heat should be the best porous tufa rock. When a place has been specially selected for their cultivation it is essential that the structure should be well heated. A moist heat is necessary for the successful culture of these beautiful plants. The hot water piping should be fixed so as to pass underneath the rockwork. The compost in which the plants are placed should be a mixture of Jadoo fibre, leaf-mould, and sand put into the interstices of the tufa. Keep a moist heat by syringing at intervals the heated pipes. By this means a luxuriant growth will be promoted and the health of the plants maintained. The tufa blocks would require to be carefully placed and cemented together, and the entire arrangement of the plants to be put in should be entrusted to the care of a competent man. As a good illustration of a greenhouse rock fernery I would mention those at Osmaston Manor, near Ashbourne, and Snelston Hall, not far away. The two places represent two distinct styles of rock formation, both alike beautiful in their character, the rock formation at Osmaston being chiefly tufa stones, whilst at Snelston one sees a combination of the natural sandstone rock with the grey limestone.

Ashbourne.

A. GODWIN.

## BIG TREES OF CALIFORNIA.

THE interesting article on the big trees of California, which appeared in THE GARDEN some months ago, leads me to some further observations concerning these most remarkable forests, and more especially that most wonderful of all, situated in the Big Basin of Santa Cruz, which is not spoken of in the article referred to. When we stop to think of these cyclopean specimens of vegetation that must have taken root long before the birth of Christ and grown old while the end of the world was still the eastern shore of the Atlantic Ocean, and that to-day they are the only living objects that have been preserved to us from those remote ages, we may well bow our heads in reverent awe and stand speechless in silent admiration. Well may we marvel at the vandals among our human brotherhood whose petty souls are dominated alone by the mercenary spirit of gain, and who stand ready and eager to destroy and despoil these hoary sentinels of 2,000 years.

Much has been said of the big trees of Calaveras and Mariposa, and those wonderful groves are visited by tourists in increasing numbers annually. But this great Sequoia forest in the Big Basin of Santa Cruz has remained almost unknown because of its comparative inaccessibility, and yet it is now found to be more marvellous, more wonderful to science, and more beautiful than anything of its kind in the world. Scientists tell us that the only vegetation which escaped destruction during the glacial period on this western continent was this narrow strip of redwood trees, scarcely twenty miles wide, extending from Monterey County on the south upward to the line of the State of Oregon, a distance of some 400 miles. Here stand these hoary monarchs of the forest primeval, members of the genus known as Sequoia, the term being the name of the Cherokee tribe, ascribed to the inventor of their alphabet. There are two species—*Sequoia gigantea*, of the north and Sierra Nevada Mountains, and *Sequoia sempervirens*, evergreen, of Santa Cruz County and the Coast Range. Both are coniferous. The redwood is valued for lumber, although most of the colour fades away when exposed to air and light.

This remarkable virgin forest in the Santa Cruz Mountains lies about twenty miles north of Santa Cruz, and contains over 14,000 acres. This Big Basin is a great rough oval rift in the summits of the range, about eight miles long and four miles wide. It is very difficult to reach, and has been seen only by a few lumber men and a still smaller

number of intrepid scientists and explorers. Careful data from such writers show that there are many trees that measure over 100 feet in circumference and 400 feet in height. There are many groves where the trees average 20 feet in diameter and 250 feet in height. Lying in the zone of maximum rainfall, which averages about 60 inches in the year, and the soil of the valley being very rich and deep, the fallen leaves and vegetable debris of age adding to the fertilising properties, these immense trees are said to surpass anything of the kind in the world in quality of texture as well as in size and age. President B. J. Wheeler, of the University of California, says that in no other place in the world can such studies in forestry be made, and, together with President D. S. Jordan, of Stanford University, he has asked that a school of forestry be established, with this Big Basin as its centre. Half the distance, and by far the most formidable half, is still without any road.

The growing demand for redwood timber has almost denuded a large part of the original forest in the vicinity of Monterey. But so far this great tract in Big Basin has been spared because of its protected situation. For a time the ruthless "mills" were headed that way, but fortunately a protracted struggle on behalf of the honour of the State and the cause of common decency succeeded in keeping them back, and the grand old monarchs of the vegetable kingdom are safe from vandal hands—for the time, at least. Money has been appropriated by the State for the purchase of this entire forest tract, and efforts are being made to convert it into a State park, and thus preserve the remarkable forest for future generations.

Concerning the practicability of converting the big trees of Calaveras Grove into lumber, it is said the cost of felling alone would be almost prohibitive. It would take five men twenty-two days to bore enough holes through any one of these 30-foot trees to bring it down. Then it would have to be cut into 40-foot lengths, each of which would still weigh about 600 tons, and no machinery has yet been built to handle such ponderous masses in the forest. No saw could work on such a section, even were it possible to haul it to the mill. Splitting with dynamite would shatter the log and spoil it for lumber. Have not we got lumber enough without sacrificing these hoary giants? And shall we not respect the edicts of Nature in placing an embargo upon these cherished patriarchs of her household? How can we permit the destruction of these oldest living witnesses of so much of the world's career, who have been so marvelously preserved to us by Nature?

Kingston, N. Y.

H. HENDRICKS.

## SOCIETIES.

### CROYDON HORTICULTURAL SOCIETY.

THE annual exhibition of the above society was held in the grounds of Brickwood House on Wednesday, July 3, thus conflicting with the metropolitan show of the National Rose Society and the gathering in the Old Deer Park at Richmond. The fact that there were three such important fixtures on the same day was demonstrated in the lack of competition in the open classes for Roses, but apart from that the general exhibition was practically equal to the high average of merit that we look for in such an excellent gardening centre. The arrangements at Croydon, in the hands of Mr. Roffey and a few energetic members of the committee, are invariably good. Non-competitive exhibits, including a superb group from Mr. W. P. Bound, gardener to J. Colman, Esq., Gatton Park, Reigate, and from such well known nurserymen as Messrs. J. R. Box, J. Laing and Sons, W. Cutbush and Son, and J. Cheal and Sons, added materially to the beauty and interest of the exhibition.

The several open Rose classes did not afford any particular interest, as Messrs. G. and W. H. Burch, Peterborough, were the only exhibitors and were awarded first prizes in each class. They showed in the various stands good blooms of Maman Cochet, La France, Duke of Wellington, Medea, Viscountess Folkestone, Mrs. W. J. Grant, Margaret Dickson, and Ulrich Brunner. The principal class for amateurs was for thirty-six single trusses, distinct, and Mrs. Haywood, Woodhatch Lodge, Reigate (gardener, Mr. C. J. Salter), was a splendid first. This is the third occasion upon which Mr. Salter has proved victorious in this class, and, as usual, he had a weighty stand of well-arranged blooms, Xavier Olibo, Duke of Wellington, Prince Arthur, Maman Cochet, and Margaret Dickson being conspicuously good. This exhibitor was first for twelve blooms of one variety, with handsome examples of Margaret Dickson. Mr. E. M.

Bethune, Denne Park, Horsham, secured several prizes, including the first for eighteen Teas and Noisettes. Smaller Rose classes were numerous, and while they did not bring the same uniform excellence of quality as the larger ones there was generally a little stronger competition. Mrs. Lascelles, Sydenham Road; Miss Thrale, Shirley; Messrs. C. B. Crisp, Chichester Road; A. E. Mason, Vincent Road; G. E. A. Schofield, Sutton; F. S. Rich, Chichester Road; F. W. Amnden, Chichester Road; and W. J. Dart, Thornton Heath, were successful exhibitors.

Table decorations were good in the winning exhibit, arranged by Mrs. W. H. Still, Addington, but in the others crowding was the order of the day. Mr. E. H. Coles, Burntwood, Caterham (gardener, Mr. C. Laue), had some splendidly furnished table plants. Greenhouse and hardy cut flowers in bunches were grandly shown by several gardeners. Mr. C. J. Salter won with twenty-four bunches of tender flowers, and Mr. G. Lewry, gardener to Mrs. Blade, Dupras Hill Terrace, for a similar number of hardy flowers. Alderman Barrow (gardener, Mr. W. Collins), had a splendid table of Gloxinias, and Mr. F. W. Amnden (gardener, Mr. J. Knapp), nine well grown tuberous rooted Begonias. Mr. G. Lewry and Mr. F. Chappell Whyteleafe (gardener, Mr. C. Walton), sent grandly grown Ferns, and the latter had some splendid Fuchsias. Mr. A. C. Blogg, Brighton Road, and Mr. W. G. Child, Frant Road, had interesting Cactaceous plants, and were both first prize winners. Mr. G. Lewry sent the best Caladiums. In the fruit section the classes were not numerous. Mr. E. M. Bethune, Denne Park, Horsham (gardener, Mr. H. Harris), and Mr. W. Lintott, The Gardens, Marden Park, were first and second respectively for black Grapes, the order being reversed for white ones. Mr. W. Collins had the best Strawberries, and Mr. C. J. Salter the best Melon. Vegetables did not present anything of very striking merit.

### NORFOLK AND NORWICH HORTICULTURAL SOCIETY.

#### ANNUAL SUMMER SHOW.

OWING to the early date this show was arranged for the Rose blooms were behind the usual standard seen at these gatherings. There were, of course, some good blooms, especially when we consider that the Rev. A. Foster-Melliar was a large exhibitor. The medal of the National Rose Society for the best Tea was secured by the Rev. A. L. Fellowes for a fine specimen of that charming variety Muriel Graham, whilst that for the best Hybrid Perpetual went to Miss Penrice, Witton House, for a fine bloom of La France. One of the finest features at this show for several years has been the exhibits of herbaceous flowers and also flowering shrubs. This section has taken a firm hold in the district, backed up by such noted private growers as Dr. Beverley, of Brundall, F. W. Harner, Esq., of Cringleford, and Mr. O. Corder, of Brundall, not forgetting the names of many others. This year the cream of the show was without a doubt the entry of forty-eight bunches, hardy flowers, distinct, staged by Mr. G. Davison, gardener to Captain Petre, Westwick House, Norwich. The same exhibitor was first for twelve bunches of flowering shrubs, and also received an award of merit for a grand new seedling Montbretia with very large golden yellow blooms named Davisonii. Mr. F. Fitch, gardener to G. F. Buxton, Esq., Dunston, had a good collection of hardy flowers, first in the class for twenty-four bunches, distinct.

Fruit and vegetables were a fairly good class, Mr. W. Allan, gardener to Lord Suffield, showing some of his famed Strawberries named Lady Suffield, of the type of Waterloo, but of a distinct Pine flavour.

Trade exhibits comprised a grand display of pot plants nicely arranged and cut blooms by Messrs. Daniels Bros., Limited; Hobbies, Limited, had a charming bank of Sweet Peas, including a new variety which received an award of merit, named White Wings, also a nice array of pot plants and miscellaneous cut flowers; Messrs. Cutbush had some of their best Carnations; Paul and Son choice Pionies and herbaceous flowers; both the Messrs. Cant sent Roses. The attendance showed a great falling off.

### ROYAL HORTICULTURAL SOCIETY.

#### ORCHID COMMITTEE.

PRESENT: H. Little, Esq. (in the chair), Messrs. J. O'Brien, J. Coleman, F. W. Ashton, W. H. White, W. H. Young, E. Hill, G. F. Moore, H. J. Pitt, James Douglas, H. M. Pollett, de B. Crawshaw, J. Wilson Potter, J. Gurney Fowler, and W. A. Biney. The work of this committee was light, as will be seen from the number of exhibitors and awards.

Messrs. Hugh Low and Co., Enfield, staged a charming display of Orchids, chiefly Cattleyas and Laelias. In the former were noted C. Mossie Wagneri, C. M. alba The Queen gaskelliana, and granulosa; Laelias epicasta, diglyana, and elegans were also noteworthy, as was also a Laelia hybrid (cinnabarina x Arnoldiana). Silver Banksian medal.

Messrs. Sander and Sons, St. Albans, staged a few choice plants, which included Platyclinis filiformis, Zygosisa rolfiana var. superba, a cross between Angaria lepida and Zygopetalum Gautieri; Lælio-Cattleya Martinetti, from Cattleya Mossie x L. tenebrosa; and Brasso-Cattleya conspicua, from C. Leopoldii x B. glauca.

Messrs. B. S. Williams and Son, Upper Holloway, staged a few Cyripediums and a good plant of Lælio-Cattleya Edouard André; the former included good plants of C. superbiens, C. wianthum, C. harrisianum superbum, and C. Curtisii.

Messrs. James Veitch and Sons, Limited, Chelsea, staged two good plants of Cattleya Warscewiczii Countess of Derby and Lælio-Cattleya C. G. Roebing albidia, a cross between L. purpurata alba and C. gaskelliana.

Messrs. W. Bull and Sons, Chelsea, staged an excellent variety of Cattleya Mendelii named Souvenir de William Bull.

From Mr. White, gardener to Sir Trevor Lawrence, Bait, came a well flowered plant of Cirrha purpurea.

Mr. Chapman, gardener to Captain Holford, Westonbirt



Tetbury, sent a fine plant of *Lælio-Cattleya* Earl Grey; a distinct variety with a deep purple lip.  
Mr. E. Hill, gardener to Lord Rothschild, Tring Park, staged plants of *Cattleya gaskelliana* alba and *Lælia cinnabarina* in good form.  
*Cirrhaea viridi-purpurea*, from Sir Trevor Lawrence, Bart., was given a hortal certificate.

FRUIT AND VEGETABLE COMMITTEE.

Present: H. Balderson, Esq. (in the chair), and Messrs. J. H. Veitch, H. Esling, S. Mortimer, Alex. Dean, Geo. Kell, T. Coomber, F. L. Lane, J. Smith, Geo. Wythes, A. H. Pearson, and the Rev. W. Wilks. Practically speaking there was little before this committee, which is rather surprising at this season.

Messrs. G. Bunyard and Co., Maidstone, staged a collection of Cherries in pots, and about thirty varieties of picked fruit arranged on plates. The trees, though small, were well cropped, and comprised *Noir de Schmidt*, *Napoleon Bigarreau*, *Windsor*, *Bigarreau Damson*, and *Monstreux de Mezel*; the dishes included *Knight's Early Black*, *Noir de Schmidt*, *Nouvelle Royale*, *Waterloo*, *St. Margaret's*, and *Florence*. *Silver Knightian* medal.

Strawberries were exhibited by Messrs Laxton Bros., Bedford; the exhibits included boxes of *The Laxton* in capital condition, also the new late variety *Trafalgar*.

Mr. G. Kell, gardener to Miss Adamson, South Villa, Regent's Park, sent some grand clumps of Mushrooms as they were lifted from the beds, and for which he was awarded a cultural commendation.

Mr. Thos. Coomber, gardener to Lord Llangattock, Hendre Gardens, Monmouth, staged fifteen splendid Queen Pines; the fruits were large, ripe, and in perfect condition, a very fine exhibit. Hogg medal.

The Horticultural College, Swanley, sent an exhibit of Carter's Endive-leaved Lettuce.

FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. C. T. Drury, H. B. May, James Walker, J. Jennings, J. W. Barr, G. Reuthe, C. R. Fielder, W. Howe, C. Dixon, H. J. Cutbush, G. A. Nix, J. Fraser, W. P. Thomson, Charles E. Shea, E. H. Jenkins, C. Blick, and J. H. Pitt.

Probably for the first time in the history of the Sweet Pea a gold medal was awarded to what was regarded as the finest arrangement of these flowers ever brought together upon one occasion. The collection was all the more noteworthy as coming from an amateur—Percy Waterer, Esq., Fawkham, Kent. There were upwards of 5,000 sprays of these flowers set up, taste and good quality marking the arrangement throughout. The varieties, too, were numerous. We give just a few of the best: *Navy Blue*, *Black Knight*, *Fire King*, *Gaiety* (a striped kind), *Mars* (red), *Miss Willmott*, *Salopian*, *Countess Cadogan*, *Mrs. Eckford* (yellow), *New Countess*, *Gorgeous* (an old, yet good kind), *America* (one of the best striped kinds), *Blanche Burpee* (white), *Othello* (dark), *Lady Grisel Hamilton*, *Captain of the Blues*, *Lady Ormsby Gore* (pale primrose), &c. The vases were set on a white cloth, over which was strewn some pale green muslin. This, with a background of dark velvet, gave a good finish to as fine and fresh a lot as we have yet seen staged.

Lord Rothschild, Tring (gardener, Mr. E. Hill), had a splendid group of that fine yellow *Carnation Cecilia*. There were some 150 plants shown, each crowned with a flower about 5 inches across. The group was very fine, and attracted a good deal of attention from quite a numerous company. The flowers were all the more ntable as the plants were only about ten months old. *Silver-gilt Flora* medal.

G. Fergusson, Esq., Weybridge, had a large group of showy *Delphiniums* in variety, for which a bronze Banksian medal was awarded.

Messrs. Hugh Low and Co., Enfield, had a group of mixed things, in which *Roses* of the *Rambler* type mingled with such New Holland plants as *Phenocoma prolifera*, *Barnesi*, *Dracophyllum gracile*, and such things. In front of these some finely expanded flowers in shallow trays of the newer *Water Lilies* were much admired. *Silver Banksian* medal.

Messrs. T. S. Ware, Limited, Feltham, brought a large and varied group of hardy flowers. There were *Delphiniums*, *Gaillardias*, *Erigerons*, *Eryngiums*, *Phloxes*, *Gaegas*, and such showy things, interspersed with small alpine and many interesting plants. *Silver Banksian* medal.

Mr. A. Wade, Colchester, set up a group of hardy things in which the English *Irises* were largely in evidence. *Sweet Peas*, with *Calochorti*, *Gaillardias*, several *Campanulas* of the *Peach-leaved* section, *Lilium pardalinum*, and *Chelone barbata* were also shown, together with *Larkspurs* and other showy flowers.

Mr. B. S. Williams, Holloway, again showed English *Irises*, together with *Alstromerias*, early *Gladioli*, &c.

Hugh Aldersey, Esq., Aldersey Hall, Cheshire, had a small collection of *Sweet Peas* in variety.

Messrs. Wallace and Co., Colchester, had a group of showy things in which a large batch of *Lilium thunbergianum* *Orange Queen* formed a feature. There were also good batches of *Calochorti*, the rich golden of *Iris juncea*, and the hybrid day *Lily Hemerocallis luteola*, which is a cross between *H. aurantiaca* major and *H. thunbergi*.

Messrs. Wm. Bull and Sons, Chelsea, had a small group of *Dracenas*, such as *D. Victoria* and *D. goldiana* being most conspicuous. *Ficus stipulata variegata*, a small-leaved kind, was also shown in pyramid form.

From Messrs. Wm. Cutbush and Sons, Highgate, came a capital lot of *Malmaison* and other *Carnations*. Of the former we noted *Mrs. Trelawny*, red; *Nantilus*, bluish; *Princess of Wales*, pink; and the fine crimson *Maggie Hodgson*. Other kinds in capital form and quantity were *Cecilia*, yellow, the crimson *Uriah Pike*, and the very pure white *Much the Miller*. *Silver Banksian* medal.

Mr. H. B. May, Edmonton, staged a capital lot, mostly double *Pelargoniums* in groups, each group or kind being well separated by ferns and the like that constituted the

general groundwork. The more worthy kinds shown were *Lady Ilchester*, double pink; *Lord Ilchester*, cerise-red; *Blanche*, double white; *Perfection*, scarlet; *Lord Kitchener*, double crimson-scarlet, &c. *Silver Banksian* medal.

In view of the lecture on trees and shrubs by Lord Annesley, the large collection of cut trees and shrubs, shown by Messrs. Paul and Son, Old Nurseries, Cheshunt, was of two-fold interest. The collection by itself, indeed, was a remarkable one, and included much valuable material in this especial branch of horticulture or arboriculture. Some of the rarer things were *Buddleia globosa* in flower, *Abutilon Vitifolium* with pale blue saucer-shape blossoms, *Caragana jubata*, *Larix Kämpferi*, the variegated *Dimorphanthus*, *Tamarix odessana* and *T. germanica*, *Eleagnus argentea*, with *Viburnums*, *Weigelas*, *Robnias*, *Catalpa*, *Philadelphus*, *Acers*, *Ericas*, and many more, forming a most interesting study in these plants. *Silver-gilt Banksian* medal.

Messrs. Veitch and Sons, Limited, Chelsea, showed some *Rambler* *Roses*, the result of crossing a multiflora simplex variety with the *Crimson Rambler*. *Rito* is a pink, wonderfully free; *Edna*, bluish pink; *Queen Alexandra*, a semi-double pink, and all are free and showy. *Lonicera sempervirens*, *Hedysarum multijugum*, with *Cornus Kousa* were also shown by the firm.

A good group of pink *Malmaison* *Carnations* in a cut state and in pots was shown by Lady Nina Balfour, Kelso (Mr. Wood, gardener), the plants evidently grown with great freedom, and were quite free from the disease that in some districts plays such havoc with these handsome flowers. A *Silver Flora* medal was awarded.

Messrs. Kelway and Sons, Langport, brought one of their characteristic displays of *Delphiniums*. *Dorothy Kelway*, azure blue, with metallic tinge; *Captain P. Scott*, dark blue; *Coronation*, purplish blue; *Britannia*, dark blue; *Dorothy Daniel*, semi-double purple and blue with white eye, extra large pip; and *Queen Alexandra*, glistening azure blue, very large flowers, were of the best. A large array of *Gaillardias* was also staged. *Silver-gilt Banksian* medal.

Messrs. B. R. Cant and Co., Colchester, had a few select *Roses*, in which we noted *Liberty* in splendid colour; *Killarney*, pink; the giant flowers of *Ben Cant*, a veritable "Big Ben" among bedding *Roses* of the H.P. class; *Maharajah*, semi-double crimson; *Mrs. B. R. Cant*, a seedling *Tea Rose*, delightfully sweet. These, with the superb white *Frau Karl Drusckhi*, which gained an award of merit, made quite a display.

Mr. M. Prichard, Christchurch, again showed excellent hardy flowers. *Iris Kämpferi*, *Funkias*, *Tropæolum Leichtlini*, *Alstromeria aurantiaca*, *Potentilla*, *Wm. Rollison*, *Delphinium Bella Donna*, and *Pæonia albatross* were among the best things generally. Then quite alone was a corner of *Bell Flowers*, of which at least some dozen or more good kinds were seen, mostly of the taller border sorts. *Silver Banksian* medal.

From Beckenham, Mr. J. Surman brought a big display of *Petunias* in pots, single kinds, well grown and well shown also. There were many varieties and perhaps nearly a couple of hundred fine plants. *Silver-gilt Banksian* medal.

Mr. Amos Perry, Winchmore Hill, again showed hardy plants finely and in great variety. *Hencheras* of sorts, a splendid lot of *Calochorti*, *Lychnis haageana*, the noble *Ostrouwska magnifica*, *Iris juncea*, *Delphinium Zaili*, *Allium azureum* with globular heads of blue, *Iris Black Prince* apparently a late flag *Iris*, *Geranium sanguineum album*, *Campanula G. F. Wilson*, and many more fine and good things. *Silver-gilt Banksian* medal.

Single and semi-double *Begonias* in great variety, size, and brilliancy were from Messrs. Cannell and Sons, Swanley. *Silver Banksian* medal.

Another fine lot of hardy things came from Messrs. Barr and Sons, Covent Garden, who, in addition to large numbers of the more showy flowers, *Delphiniums*, *Sweet Peas*, *Gaillardias*, *Sea Hollies* in variety, *Campanulas*, *Pinks*, &c., showed quite an array of the early *Gladioli* such as *Blushing Bride*, *Crimson Queen*, *Little Lady*, *Carminata elegans*, &c., also *Ixias* and *Irises*. *Iris aurea*, *I. juncea*, and *I. Monnierii*, formed a trio of yellow *Irises* not easy to surpass in July. *Silver Banksian* medal.

Mr. J. Russell, Richmond, had a group of stove plants in which *Alocasias*, *Dracenas*, *Crotons*, *Palms*, *Aralias*, *Acalypha hispida*, *Araucaria Cookii*, and such things took a leading part, and with bolder plants in the background were margined with *Caladium argyrites*, &c. *Silver Flora* medal.

CERTIFICATED PLANTS.

The following received awards of merit:—  
*Alstromeria Mrs. Salter*.—A dark red form of the *Aurantiaca* group, with enormous heads of some three dozen flowers. A very showy kind. Exhibited by J. H. Salter, Esq., Witham.

*Delphinium Kitty Woodall*.—A semi-double kind, with large violet-blue flowers, arranged on a handsome spike. From Messrs. Kelway and Sons, Langport.

*Dracena His Majesty*.—A well-coloured member of the *D. terminalis* (Cordylina) group. The richly-coloured leaves are closely arranged, giving a compact habit, broad arching, and of a character well fitting it to general decorative work. Shown by Mr. H. B. May, Edmonton.

*Polypodium triodes ramo-crystallum*.—This striking plant is 2 feet high, and from a tapering base the fronds rise and spread out in a varied, cristate fashion at the termini. Shown by Messrs. Wm. Bull and Son, Chelsea.

*Carnation Countess Carrington*.—A fine border kind of a pale pink shade, and strongly fragrant. The flowers are of good size and well maintained within the calyx. From Martin Smith, Esq., Hayes, Kent (gardener, Mr. Blick).

*Rose Frau Karl Drusckhi* (H.P.).—A sweet-scented variety of large size and almost pure white. The variety evidently possesses great vigour and freedom. Shown by Messrs. B. R. Cant and Co., Colchester.

*Lobelia cornu-pollia*.—This beautiful species appears to have been introduced from the Cape as long ago as 1752. The gentian blue flowers are large and showy, and borne on

slender peduncles. The lance-shaped leaves have a toothed-like termination, hence the specific name. This very attractive species was shown by Mr. J. T. Bennett-Poe, Cheshunt.

NATIONAL SWEET PEA SOCIETY.

THE second exhibition of this society was held on Tuesday and Wednesday last, in the Royal Aquarium, Westminster, and was generally considered to be most satisfactory. The flowers on the whole were small, but many good blooms appear to have been spoilt by the storm last week. At the luncheon given to the committee and judges, Mr. George Gordon presided, and in the course of his remarks referred to the opposition the society had had to encounter, but said they were, notwithstanding, determined to persevere in the improvement of the Sweet Pea by upholding the society and its exhibitions. The name of Mr. Richard Dean was coupled with the toast of the society, and Mr. Dean suitably replied. Mr. S. B. Dicks proposed "The Judges and Exhibitors," and Mr. John Wright and Mr. Simpson replied. The proceedings closed with the toast of "The Chairman," given by Mr. William Cuthbertson.

OPEN CLASSES.

For thirty-six bunches of *Sweet Peas*, distinct (prizes given by Messrs. Hurst and Son), Mr. W. Simpson, gardener to R. C. Foster, Esq., J.P., The Grange, Sutton, won the first prize with an excellent display. The flowers were not crowded at all, and they included the leading varieties. *Miss Willmott*, *Senator*, *Prince of Wales*, *Gaiety*, *Prima Donna*, *Dorothy Tennant*, *Gorgeous*, and *Lady Hamilton* were of the best. Messrs. Jones and Sons, Shrewsbury, won the second prize with some very good flowers; Mr. Leonard Brown, Brentwood, Essex, was third, and Messrs. F. Smith and Co., Woodbridge, fourth.

For twenty-four bunches (prizes given by Messrs. Copper, Taber and Co., Limited, Southwark Street), Messrs. Isaac House and Son, Westbury-on-Trym, were first with a very good stand, *Gypsophila* being interspersed. Of the best were *Lady Grisel Hamilton*, *Black Knight*, *Salopian*, *Grace Greenwood*, and *New Countess*; Messrs. Jones and Son, Shrewsbury, were a good second, and Mr. Leonard Brown, Brentwood, third.

Messrs. Jones and Sons were first for twelve bunches, showing some excellent flowers, of which *Purity*, a new white seedling, was the best; Messrs. Isaac House and Son were second; and Mr. Charles W. Breamore, High Street, Winchester, third.

TRADE EXCLUDED.

For thirty-six bunches (prizes given by Messrs. Webb and Sons) Mr. J. Clark, Wislow Hall Gardens, was first with a good exhibit of bright and fresh flowers, *Gorgeous*, *Mars*, *Black Knight*, and *Monarch* were of the best; Mr. F. Ackland, Hopford House Gardens, Frome, was second, showing well also; Mr. C. Osman, Sutton, Surrey, was third; and Mr. Thomas Leith, Basingstoke fourth.

For twenty-four bunches of *Sweet Peas* (prizes given by Mr. Eckford), Rev. L. Knight-Smith was first, showing some very good flowers of the best varieties; Mr. F. J. Clark, Wislow Hall Gardens, Leicester, was a good second; Mr. Tom Stanton, Sion Hill Place, Bath, third; and Mr. J. G. Ward, Brentwood, fourth.

Mr. Silas Cole won for twelve bunches (prizes given by Mr. Robert Sydenham), with remarkably good flowers of *Emily Eckford*, *Hon. Mrs. Kenyon*, *Countess Spencer*, *Sadie Burpee*, and others; Mr. G. Hughes, Kingston, was second, and showed well also; Mr. Aubrey F. Wootte, Epsom, was third; and Mr. J. G. Ward fourth. There were numerous other entries, making this one of the best classes in the show.

For six bunches (prizes given by Hobbies, Limited, Dereham), Mr. Silas Cole was first with good flowers; Rev. L. Knight-Smith second; and Mr. H. A. Needs, Horsell, third. All three showed good blooms.

For nine bunches (prizes given by Messrs. Jones) Mr. H. A. Needs was first with fine flowers of good sorts; Mr. Ernest Beck, Hoddesdon, was second; and Mr. Silas Cole third.

FLORAL DECORATIONS IN SWEET PEAS.

For a decoration of *Sweet Peas* for the dinner table (trade excluded) Mr. H. A. Needs was first, using yellow and pink *Sweet Peas*, *Smilax* trailing upon a white cloth and a pink muslin centre; Mrs. F. H. Barnes, Hornchurch, Essex, was second; and Mr. D. B. Crane, Woodview Terrace, Archway Road, Highgate, N., was a good third. In a similar class (open to all) Mr. D. B. Crane was first with *Sweet Peas* in shades of pink and grasses prettily used; Messrs. Jones, of Shrewsbury, were second, using pale blue and a few buff *Sweet Peas*; Miss Adelaide Harwood, Colchester, was third.

Messrs. Jones and Son, Shrewsbury, won for an epergne of *Sweet Peas*; Miss Cole, Feltham, being second, and Mrs. Noy third.

Messrs. Jones were first for a basket of *Sweet Peas*, Miss Cole second, and Mr. Hayward, Kingston, third.

OPEN.

Two bunches of white *Sweet Peas*: First, Rev. Knight-Smith with *Sadie Burpee*.

Two bunches of scarlet or crimson: First, Mr. Charles W. Breamore with *Mars*.

Two bunches of yellow or buff: First, Messrs. Isaac House and Son, Westbury-on-Trym, Bristol, with *Hon. Mrs. Kenyon*.

Two bunches of pink: First, Miss Cole, showing *Prima Donna*.

Two bunches of rose: First, Messrs. Isaac House with *Lord Rosebery*.

Two bunches of mauve: First, Mr. Isaac House, showing *New Countess*.

Two bunches of blue: First, Mrs. Noy, Brentford, with *Navy Blue*.

NON-COMPETITIVE EXHIBITS.

Messrs. Dobbie and Co., Rothessay, N.B., were awarded a large gold medal for a remarkably fine display of *Sweet*



Peas in splendid variety. They were pleasingly arranged in Bamboo stands, in glasses, both tall and short, and interspersed was suitable greenery. A very attractive exhibit.

Mr. H. J. Jones, Lewisham, displayed an excellent lot of Sweet Peas also. An effective background of Bamboos and grasses prettily arranged between the flowers added much to the general effect. Gold medal.

Hobbies, Limited, Dereham, had a splendid exhibit of Sweet Peas, including many beautiful sorts, which were tastefully displayed. Gold medal.

Messrs. Jones and Sons, florists, Shrewsbury, also obtained a gold medal for a very fine display of the flower of the day in some of the best varieties. The flowers were of good quality, and the Palms, Ferns, and other greenery made the exhibit very effective.

Hobbies, Limited, displayed a collection of cut Roses in considerable variety, for which they were awarded a gold medal.

Messrs. Isaac House and Son, Westbury-on-Trym, Bristol, were given a silver medal for an attractive group of miscellaneous hardy flowers.

Messrs. George Stark and Son, Ryburgh, exhibited a good display of Sweet Peas. Silver medal.

Messrs. G. W. King and Co., Coggeshall, also showed Sweet Peas in variety. Silver medal.

Messrs. John Peed and Son, West Norwood, S.W., were awarded a silver medal for a very attractive display of Sweet Peas and hardy flowers.

Pelargonium Fire Dragon was shown by Mr. E. S. Towell, Hampton Hill.

#### CERTIFICATED VARIETIES.

The following varieties were shown by Messrs. Dobbie and Co., Rothesay, and each obtained a first-class certificate: Britannia (crimson and white), Jessie Cuthbertson (white, splashed with pale crimson), and White Queen, (pure white).

#### THORNTON HEATH.

THE southern suburbs of the Metropolis provide many admirable exhibitions of gardening produce, and amongst the latest recruits is Thornton Heath, whose second show was held on the 9th inst. under regrettably unpropitious climatic conditions. Taking into consideration the age of the society, it speaks well for the management that it was able to bring together such a considerable array of meritorious produce, and it is pleasant to hope that this may be an augury of even better and greater things in the future.

Though grown within a comparatively limited radius, Roses were beautifully shown in several classes. For twenty-four distinct, Mrs. West, Grange Road, Sutton, was first; Mrs. W. H. Lascelles, Sydenham Road, Croydon, second; and Mr. G. V. Schofield, Sutton, third, but neither showed strong sets. For four trebles, C. L. Crisp, Esq., Croydon (gardener, Mr. J. Heading), was first with Jeannie Dickson, Ulrich Brunner, Margaret Dickson, and Her Majesty; Miss Thrale, Shirley, was second. Mr. Keppel H. Gifford, Sutton, was first for six distinct, with François Michelin, Suzanne Marie Rodocanachi, Mrs. J. Laing, Horace Vernet, Her Majesty, and Comtesse de Ludre; Mr. H. E. Molyneux, Balham, was a dangerously close second with smaller blooms of refined character. Mrs. West won, for six Teas, with Innocente Pirola, Maman Cochet, The Bride, Mrs. Edward Mawley, White Maman Cochet, and Bridesmaid. For six, one variety, Mr. Gifford was first, Mrs. Lascelles second, and Mrs. West third, each with Mrs. J. Laing; it was a very easy win for Mr. Gifford. In local Rose classes, Messrs. Holmes Davis, W. J. Dart, A. E. Mason, and E. T. Baker were successful.

Sweet Peas were beautifully shown by Mr. C. Osman, Sutton, who won the open class for twenty-four bunches; Mr. F. W. Amesden, Croydon (gardener, Mr. J. Knapp), was a good second; Mr. J. Heading third. Mr. G. Davidson, London Road, won Mr. Sydenham's first prize for nine distinct. Mr. Eckford's prizes for twelve were won by Mr. H. Dart, Woodville Road, and Mr. R. Bullfield, Brigstock Road, both of whom showed well. Eleven tables were arranged by ladies, of whom Miss May Dart was first with pink Sweet Peas; the centre piece was slightly heavy at the top, and the base was not nicely finished, but the general effect was good. Miss Ethel Burroughs was second with Iceland Poppies effectively displayed, and Miss West third. This was a splendid class. Mr. W. J. Dart won in the class for gentlemen with a bold arrangement of Improved Shirley Poppies; Mr. Cooke, jun., was second with white and light and dark purple Sweet Peas, somewhat heavily placed, but very beautiful. Mr. J. P. Bewsher was third.

The classes for hardy flowers, plants in pots, bouquets, sprays, hardy fruits and vegetables were well contested, and much excellent produce was staged. Mr. H. Eckford, Wem, had a beautiful collection of Sweet Peas, not for competition.

**Exhibition of Roses at Regent's Park.**—In the beautiful gardens of the Royal Botanic Society, Messrs. William Paul and Son, of Waltham Cross, from July 16 to 20, arranged a delightful exhibition of Roses, the extent and variety of which speak volumes for the resources of this firm. The Roses were both growing and cut, and were arranged in a natural and graceful manner. The pot plants comprised all the leading Hybrid Perpetuals, together with many of the best Hybrid Teas. Pillars of Crimson Rambler and Leuchstern were very bright, and from the roof hanging baskets were suspended full of lovely trailing Roses, such as Jersey Beauty, Pink Roamer, and

Ruby Queen. A pretty feature, and one we should like to see more generally adopted at Rose shows, was made by the neat green baskets filled with some two dozen flower sprays, each basket containing one variety and displayed just as cut from the plant, surrounded by all the buds that are so characteristic of many of our modern decorative Roses. We have not space to enumerate all the varieties to be found in this unique exhibit, but we noted many of the firm's own special raising. Foremost among these was Corona, a grand flower of the Hybrid Tea section. Morning Glow is a Rose of an almost indescribable colour of bronzy yellow, and Chameleon is one of the pretty ever-blooming Roses. Other novelties exhibited in baskets were the brilliant Corallina, which well maintains its reputation; Queen Mab, and a new hybrid Polyantha, Floribunda by name, a most prodigious bloomer. Baskets full of climbing Belle Siebrecht were grand, and so were Clio, Tenoyson, White Lady, Pride of Waltham, Duchess of Bedford (scarlet), Ella Gordon (a fine crimson), Star of Waltham (a splendid full Rose, very double, and most handsome foliage), and the fragrant Aurora. Baskets of the leading Tea-scented kinds showed how suitable they are for exhibiting in this way, and particularly striking were Georges Schwartz, certainly the best yellow bedder yet raised; Souvenir de William Robinson, of a most uncommon colouring; Mme. Antoine Mari, a pretty novelty; and Mrs. Edward Mawley. The China or Monthly Roses were much in evidence, and the Polyantha Roses were not forgotten in this most representative exhibit. We noted fine lots of Eugene Lamesch, Leonie Lamesch, Petite Constante, Perle des Rouges, Gloire des Polyanthas, Perle d'Or, and others. A splendid new Rambler Rose was shown: named Waltham Rambler. It is a great advance on Rose of the Leuchstern type. Old-fashioned Roses were represented by Persian Yellow, Common and White Provence, Moss Roses of sorts, Mme. Hardy, York and Lancaster; and we also noted the quaintly pretty crested Moss and the curious green Rose viridiflora. When we say that numerous bunches and sprays were interspersed, and altogether some 6,000 or 8,000 flowers were placed in view, some idea may be formed as to the extent and beauty of this Rose exhibition, and Messrs. William Paul and Son are to be congratulated, especially in such a trying season.

**South Shields Chrysanthemum Society.**—This famous Chrysanthemum society, an advertisement about which appears this week, has come to life again, and we hope, to begin a successful career. The president is Mr. Jas. Readhead, J.P., and the hon. secretary, Mr. Bernard Cowan, and the assistant, Mr. Thos. A. Binks. The prize list is a most liberal one, the first prize in the classes for thirty-six Japanese and thirty incurved flowers being £6. The president offers a Coronation silver cup value 15 guineas.

**The Midland Carnation and Picotee Society.**—At a committee meeting held recently it was decided to postpone the exhibition on account of the lateness of the season to Thursday and Friday, August 7 and 8, instead of July 30 and 31, as originally named.—HERBERT SMITH, Hon. Sec. The show takes place in the Birmingham Botanic Gardens.

## ANSWERS TO CORRESPONDENTS.

**Names of plants.**—E. W. I.—Your Iris flowers were in a withered condition on arrival. They appear, however, to be—1, unrecognisable; 2, Iris sibirica variety lacta; 3, Iris sibirica variety (near lacta); 4, Iris sibirica variety atropurpurea; 5, Iris squalens variety. Your soil is probably too retentive of moisture for the majority of Irises. You would do well to trench the ground deeply and dig in a quantity of grit and cinders. The plants should not be left too long in one position without replanting. It would be a good plan to get some good local gardener to examine your plants and beds. It is difficult to advise on these subjects when the exact conditions are unknown.—J. R. D.—Your plant is *P. pilosum* var., and

differs from that species in the absence of the white marking on the base of the petals. There is also a slight difference in the foliage which, in the true plant, is of more pale green. You will not be far wrong in calling it *P. pilosum* var.

**Mulching herbaceous border** (ROSEMARY).—Certainly the mowings of a lawn, spread over the soil of a herbaceous border, form a useful mulch, and there is no need to dry it before placing it on the soil, as it withers up rapidly. But if these mowings be used the lawn should be frequently mown to prevent Daisies or grasses producing seed. The fewer weeds or coarse grass in the lawn the less danger is there of weed production through seed agency. Grass dies rapidly, and whilst brown is less noticeable as a mulch than cocoa fibre refuse. The brown material you refer to is no doubt peat moss litter, which helps to retain moisture in the soil, but is far more useful when it has been employed to bed horses in stables, as then it is full of plant nutriment. Any of these things with other manure will benefit the soil if dug in the following winter.

**Orchis maculata** (N. B.).—The flower is *Orchis maculata*, one of the most cherished of native Orchises.

**Hollyhocks from seed** (CHALSTON).—If you want to have a fine show of Hollyhocks next year by all means get seed and sow it at once. There should be no difficulty, now that the soil is so moist, in getting the seed to germinate freely, and

if sown thinly in shallow drills, 12 inches apart, you should have plenty of strong plants to lift and put out where you want them to bloom in September. They would thus become strong and flower finely the following year. If you fear to sow the seed out in the open, then sow thinly in shallow boxes or pans, or in a frame, or under a hand-light. In such a case, when the plants are 3 inches in height they had better be lifted and dibbled out into some good ground, 9 inches apart, where they can remain till the autumn, then be lifted with good balls of soil attached to each, and planted where to bloom. When seed is sown late or in warmth early in the spring very often many plants fail to bloom the following year.

#### QUESTIONS.

**A plant naturalisation society.**—Would you be so kind as to inform me if there is any society or company called the Botanic Naturalisation Society for introducing seeds and plants to every part of the world?—B. N. S. [We have never heard of this society, but perhaps some reader of THE GARDEN can give the address.—Ed.]

**Wall gardens in summer.**—Will you please tell me what plants I can have to make my walls bright and interesting during the summer months? They are bright in spring, but at this time are most unsatisfactory. I want masses of colour, and will spare no expense to get it. There must be many things I can get from seed to give colour in June, July, August, and September. I feel sure there are many readers of THE GARDEN who can help me over this difficulty. My garden is near the River Thames, but on rising ground.—H. E.

#### TRADE NOTE.

##### RUSTIC SUMMER HOUSES.

MESSRS. PREEDY AND CO., Kelross Road, Highbury, N., manufacturers of portable rustic summer houses, arbours, bungalows, garden seats, &c., send us their illustrated list, which contains several exceedingly attractive designs in the above garden furniture, and these are all built of the very best forest hard woods. The designs are artistic, and the articles before leaving Messrs. Preedy's works are well finished and varnished. This is an important matter, for nothing is more annoying than to find that one's garden furniture quickly suffers from the effects of the weather, yet this will happen unless the wood is first well seasoned and prepared. Messrs. Preedy also make a speciality of rustic bridges. The summer houses are built in sections, and need simply to be screwed together to fix, although experienced workmen are sent to erect them if necessary. Messrs. Preedy will be pleased to send an illustrated list upon application.



ORCHIS MACULATA.



# THE GARDEN

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## INDUSTRIAL GARDEN CITIES OF THE FUTURE.

**A**MONGST the many serious social problems of the day not the least serious, perhaps, is one which ought, for reasons both ethical and physical, to come home to every thoughtful dweller in a country house and garden. The constant drifting away of the able-bodied rural population to London and to the larger towns arouses, on the one hand, grave misgivings, while the sad cry is just as constantly wafted back to the country, of the squalor and misery and crime inseparable from the over-crowding of congested cities and the consequent gradual deterioration of the race.

The problem of getting the people back to the land is, confessedly, a hard one, and not easily to be understood in all its bearings, much less solved, without large expenditure, not of money merely, but of labour and anxious thought, and probably not without some false demonstrations and futile attempts at solution as well. The attention of the readers of *THE GARDEN* was directed some two years since to a scheme put forward by the Garden City Association, whereby it was proposed so to combine the opposing attractions of town and country as to create and gather into the common focus of a rural city a counter influence strong enough to overbalance the advantages presented separately by town life or country life, whilst it sought to correct and mitigate the evils inherent in either one or the other. It is a satisfaction to learn that the sprouting germ of the idea is taking strong root and gives promise of healthy growth and fruitfulness. We are, at the same time, assured by the names of able and sober-minded men of all shades of religious and political opinion which appear on the list of vice-presidents of the association that the youthful but vigorous organism is regarded, in influential quarters, with hopefulness and some degree of faith in its future useful development. The scheme, Utopian as it may seem at first sight, claims to be based on sound financial principles, and a small book, entitled "Garden Cities of To-morrow," a second edition of which has recently been published, enters fully into the projects of the association and will repay candid and careful study. We may not, perhaps, agree with all the arguments of the author, temperate in essence though they be. Knowledge of human nature may forbid us to look for perfect harmony or for

unalloyed material prosperity in any given area, even under the most ideal conditions, and many may shrink from the sacrifice, which such propositions, adequately carried out, must inevitably entail, in the long run, on that part of the community which seldom comes, even remotely, into touch with the submerged tenth or the stratum of society immediately above it. Fain would most of us let conscience sleep and, so long as misery is not in actual evidence, allow things to remain as they are in a world which has treated us individually with so much kindness. Nevertheless, it may not be. As Ruskin once wrote: "There is no wealth but life. Life, including all its powers of love, of joy, of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings; that man is richest who, having perfected the functions of his own life to the utmost, has also the widest helpful influence both personal and by means of his possessions over the lives of others." (Unto this last, page 156.) Can it be possible for us, then, to forget the thousands existing in our midst, who are neither noble nor happy, owing, in great measure, to the unutterable evils engendered by the grime, the narrow limits, and the stifling air of the over-packed tenements in the city streets, which represents to them the best elements of all that they can call "home?"

The ring of the hammer, the clank of machinery, all the busy sounds, in fact, of human industry, are apt to affect the over-strung nerves of the age, and so, in order that we may shut out the bustle and hum of workaday life which encroaches upon us unceasingly, we, who belong to the leisured classes, fence about our homes with fair garden plots, larger or smaller as circumstances dictate. These, year by year, as taste and experience grow, bid fair to become more and still more idyllic, and who would say that we do wrong to enjoy them to the full. But for this very reason, surely, it behoves us to lend, as we are able, a helpful hand to any reasonable scheme for bettering the condition of those whose lines are not cast in the same pleasant places, that we may bear our part in bringing a share of the peace and refreshment of our own beautiful surroundings into the weary and unbeautiful lives of so vast a proportion of the citizens of this great empire of our love and pride.

We may, at any rate, venture to hope that a scheme, "having its origin in the thoughtful study of many minds and the patient effort

of many earnest souls, each bringing some element of value," will, when it is perfected, work for the ultimate welfare not of one class only but of all estates in the realm. Therefore, while wishing it well ourselves, we think it not unseasonable to commend the subject in good time to the serious consideration of the gardening public in general, and of landscape gardeners in particular, for if the "Garden Cities of To-morrow" are to be ideal in natural beauty as well as healthful and self-sustaining through trades and manufactures the opposing forces thus brought together will require to be firmly held in leash by very strong and skilful hands.

## TENDER SHRUBS AND TREES IN THE SOUTH-WEST.

THE possibilities that exist of the successful open-air culture of tender subjects in the south-west are but little dreamt of by the majority of English flower lovers. They doubtless read with interest the accounts in the Horticultural Press of Australian, Chilian, and Californian flowering trees and shrubs growing in their native habitats, and very possibly feel a desire to visit these climes in order that they may verify with their own eyes the truth of their readings. As a matter of fact, however, a lengthy sea voyage is by no means indispensable in order to view certain of these exotics flourishing in the open air, for a few hours' journey by rail will bring the passenger to a land where many of these denizens of other climes may be seen enjoying robust health under English skies.

The following list of tender shrubs and trees growing in the gardens of the south-west cannot claim to be an exhaustive one, since it contains only such as I have personally noticed in good health during my rambles along the southern coast line of Cornwall and Devon, and, where no lengthened inspection is possible, it is obvious that certain species and varieties must be overlooked. Incomplete, however, as it doubtless is, it should give an idea of the climatic advantages enjoyed by the district in question.

On consulting my note-book I find that many of the subjects mentioned were growing in Tresco Abbey Gardens, Isles of Scilly, but most of these I also found in mainland gardens as well. Where I have met with any at Tresco only I have noted the fact, but these may also be present on the mainland unknown to me.

The soil of the Scillies, which is composed apparently of peat and disintegrated granite, and is almost identical with much of that around Penzance, is admirably adapted for hard-wooded Australian, New Zealand, and Chilian shrubs and trees, and almost all the species and genera enumerated would be best suited by a compost in which peat or leaf-mould and granite sand formed the chief proportion, although it must be allowed that some alluded to have been found to succeed equally well in sandy loam. Porosity in the soil is indispensable, for in this district, where the winter rains are often exceptionally heavy, unless the water percolates rapidly through the ground,



stagnant moisture collects around the roots, a condition which is absolutely fatal to success. The advantages of the Cornish granite sand are gradually being appreciated. I was told the other day by an acquaintance that since he had imported it by the truck-load to his Sussex garden, he was able to grow many things successfully that he had before failed with.

I have arranged the following list in alphabetical order:—

*Abelia floribunda*.—Mexico. A beautiful evergreen shrub, bearing clusters of drooping pink flowers about 3 inches in length. Requires a sunny and sheltered site. Finest specimen 6 feet. Several gardens.

*Abutilon venellarium*.—Rio Grande. A handsome evergreen species, generally grown against a wall. It throws up long slender arching shoots from 6 feet to 8 feet in length, studded with pendulous, bell-shaped flowers with crimson sepals, yellow petals, and dark brown stamens, which are very striking, and often remains in bloom for six months. Common.

*Abutilon vitifolium*.—Chili. A most ornamental evergreen shrub of which there are two forms, one bearing lavender flowers, the other white. In exceptional cases it attains a height of 20 feet, and when covered with its large blossoms, which are about 3 inches in diameter and feathered to the ground with foliage, it presents a lovely picture. Large specimens form pyramids of bloom, and in some gardens numbers of these are to be found. Wall protection unnecessary.

*Acacias*.—Australia. In Cornish and South Devon gardens many species are to be met with in robust health. *A. affinis*, very generally confounded with *A. dealbata*, is the most common. In many cases *A. affinis* is grown as *A. dealbata*. The leaves of the former are green, while those of the latter are bluish, and its flowers are less bright in colour. A group of *A. affinis*, about 35 feet in height, was a wonderful sight at Tregothnan at the end of March, being simply covered with golden blossom, which was thrown into high relief by a background of Ilexes. *A. verticillata* is another handsome species, flowering later in the spring. It is a very rapid grower, reaching a height of 15 feet in a few years, generally growing in the form of a broad based cone, with its lower branches but a foot or so from the ground. When in flower it is so covered with its pale yellow blossoms that no foliage is discernible. *A. armata* may be seen as a bush 7 feet high and as much in diameter. *A. ovata*: This I have only seen as a bush some 3 feet high, very pretty when bearing its circular, golden flower-balls. *A. longifolia*: Another handsome tree with leaves something like those of an Oleander, and bright yellow flowers. *A. melanoxylon*: A fine tree. The specimen at Tresco is about 50 feet in height, and there are good examples on the mainland. Pale yellow flowers produced in profusion. Other species I have met with are *A. riceana*, *A. lophantha*, *A. calamifolia*, *A. tinifolia*, *A. latifolia*, and *A. platyptera*, the latter against a wall.

*Adenandra fragrans*.—Cape of Good Hope. A small evergreen shrub, bearing fragrant rose-coloured flowers. Tregothnan.

*Anopterus glandulosa*.—Tasmania. A vigorous evergreen shrub with dark, shining green leaves, bearing long, erect, terminal racemes of white cup-shaped flowers, resembling the blossoms of *Clethra arborea*, but larger. Tregothnan.

*Aralia quinquefolia*.—Garden seedling. A striking plant with dark green, large-sized leaves divided into five sections. Height at present 5 feet. Tregothnan.

S. W. FITZGERBERT.

(To be continued.)

## PLANTS AND FLOWERS IN THE WEST INDIAN ISLANDS.

(Continued from Vol. LXI., page 392.)

A SPECIES of *Eugenia* (I think the one from which Allspice is obtained) has flowers like

glorified Eucalyptus, and the tree grows to a fair size. (The Chilian species is hardy at Harrow Weald.) The yellow-flowered Agave (*Agave Morrisii*) was just coming into bloom. Each spike rises in solitary grandeur to a height of certainly 15 feet. It is attractive to the humming birds, for on one spike, of which only the lower flowers were open, we counted twenty of these lovely creatures. It would be an endless task to name and describe all the splendid trees and shrubs one remembers having seen, and I will therefore say nothing further on the subject, but will just add a few words as to the various fruits, and close with a slight account of the two important botanical gardens of Jamaica. Seeing that our visit to the islands was made in the winter, and that the best fruits do not ripen until summer (even the Mango was not then by any means in perfection) it would perhaps hardly be fair to say that the fruits of the islands would only appeal to the palates of the curious, for we discarded one and all in favour of the Jamaica Orange—the best being one with a very thin skin, which, when the fruit is in perfection, remains of a green colour, almost as green as the skin of a ripe Lime.

From recent correspondence in the *Times* I gather that the fruiterers of this country persistently boycott the Jamaica Orange, and, as a mere matter of business, this is not to be wondered at, for if the Jamaica Orange once became well known here the public would insist upon having it, to the ruin of thousands of people at present employed in the Orange trade.

The supply of these Oranges in Jamaica alone could soon be made inexhaustible, and some idea of price can be gathered from the fact that when driving in Trinidad we asked a coloured man for a few Oranges and he swarmed up the tree at his "front door" with a bag, and came down with about three dozen absolutely perfect Oranges, for which he was well satisfied with a threepenny bit. These Oranges carry very well, and arrive here in excellent condition. We all know of the trade that is being established in Bananas by a large and enterprising firm of shipowners, and it was interesting to see how the cultivation of the Banana was spreading in Jamaica.

The plant is easily enough grown, and the natives just cut the bunches when ready and leave them by the roadside until the collecting carts from the various villages pass by, when they are carried to Kingston or in some cases to Port Antonio on the opposite side of the island for the American markets. At first it was difficult to realise that the limit of production was one bunch of fruit to one shoot, and that after the fruit was gathered the grand growth from which it was taken was cut down (in three distinct operations at intervals of a few weeks in order to avoid excessive bleeding), and then, instead of the one shoot, come up three to five strong suckers which, in the incredibly short space of about nine months, will have their single bunches ready for gathering.

There is one variety of Banana that is far away better than the best obtainable in England. It is called the "Fig Banana," a very thin-skinned and delicately-flavoured form of small size; and at the other end of the scale is the Plantain, which is in appearance apparently exactly like the Banana, but the fruit is large and coarse, and requires cooking before it can be eaten. Of the other fruits there is little to say; we tried several—Green Cocoanut was cool and refreshing; Sapodilla has a sharp and pleasant taste—it has to be kept like a Medlar, which it is not unlike in

flavour, while in appearance it resembles a rotten Apple; the Star Apple is considered rather a delicacy; the acidity of the Tamarind is known to all; Sour Sop (*Anona muricata*) and Sweet Sop (*Anona squamosa*) are both largely used, but the former only by Europeans. It is in appearance somewhat like very large Custard Apples, but the flesh was simply cotton wool saturated with delicious acid juice; the latter is only eaten by Creoles and natives, being much too sickly for European taste; the Grape-fruit is worth eating, a very refreshing fruit on a hot day—it looks like a large pale-coloured Orange, and is very juicy.

Beyond the fruits named I do not remember any that call for special notice. The two public gardens in Jamaica, which every visitor ought to see, whether specially interested in flowers or not, are the Hope Garden and the Castleton Garden, both under the management of Mr. Fawcett, the director of Public Gardens and Plantations. The Hope Gardens are within four or five miles of Kingston, and the few hours which alone we could spare out of our too short visit of four days to Jamaica might have been spread into days without seeing all that there was of interest there.

Mr. Fawcett's house is pleasantly situated in about the centre of the gardens, having for a view a well-kept and large lawn—the rarest of things on these islands—studded with specimen Palms of various kinds and other well-grown trees of fine foliage, including the Traveller's Tree (*Urania speciosa*), so called because the leaves when cut yield an abundant and refreshing juice. At the back of the gardens rise hills of 4,000 feet in height, the house itself is covered with creepers, the verandah by a handsome Bignonia, and the railings which separate Mr. Fawcett's private grounds from the public gardens are draped with a lovely trailing plant well named Coralilla (*Antigonon leptopus*), a plant which was blooming profusely in all the islands. Over the gateway was hanging a bluish clustered twiner (*Petrea volubilis*), contrasting most beautifully with the rose-coloured flowers of the Coralilla.

Our walk through the gardens with Mr. Fawcett was an education and pleasure which it would be hard to equal. We strolled along a well-shaded avenue where every tree was covered with Orchids, either growing naturally and well established upon the bark or suspended in baskets, and came out upon two grand shrubs of Bougainvillea, just a mass of bloom. After passing Tree Ferns and an immense variety of other Ferns, and noticing the many Aroids which there covered the tree trunks, we came again into the full sun to be met with a glaring scarlet blaze from a good breadth of double Poinsettia, a plant which Mr. Fawcett was anxious to know the history of, and of which he was much surprised to hear that, so far as we knew, it had lost favour in this country. Perhaps some of your readers will kindly send a note to THE GARDEN on the subject. Amongst the flowers that Mr. Fawcett named for us was the glorious blue trailer (*Clitoria Ternatea*), which was well figured in the coloured plate of your journal some years ago. In the nursery gardens there were some 70,000 plants, such as Cocoa, Nutmeg, Clove, Vanilla, Cinnamon, Coffee, Orange, Rubber, &c., chiefly in many varieties, and on an average some 40,000 of these are annually distributed throughout the island, to the great benefit of the growers, both small and large. The gardens are comparatively new, but when looking at the grand



trees and Palms it is hard to realise that this is so.

The Castleton Gardens are much older, having been started some forty years ago; they are about nineteen miles from Kingston, and every yard of the drive is of interest. As the gardens have a rainfall of 120 inches, as against 50 inches at Hope, and are somewhat sheltered from both morning and evening sun, the place is a sort of vapour bath, which the vegetation, if not the visitor, enjoys.

At the entrance stand two noble Palms, with a drapery of *Thunbergia Harrisii* in full bloom, and close by was a large tree of *Jacaranda filicifolia* covered with blue flowers, while at one's feet *Phaius grandifolius* showed numerous spikes of flowers. Further on we came to the Water Lily tank, where *Victoria regia* had opened its first flower of this season, while by its side was the Water Hyacinth (*Pontederia azurea*), which was figured in THE GARDEN a good many years ago. We were shown very many things of great interest and beauty by Mr. Thompson, the superintendent, but the greatest treat of all, and one which alone was worth crossing the ocean to see, was a magnificent tree of *Amherstia nobilis* in full bloom. I cannot better close my paper than by quoting what is said about this in that rightly prosaic, but valuable book of reference, "Nicholson's Dictionary of Gardening": "*Amherstia nobilis* is a stove evergreen tree of unsurpassed magnificence and brilliancy. The flowers are, unfortunately, somewhat ephemeral, lasting but a few days in perfection, during which period however no object in the whole range of the vegetable kingdom presents a more striking aspect than this tree."

ANDREW KINGSMILL.

ORCHIDS.

ORCHIDS AT THE WOODLANDS.

CERTAINLY as seen at the Woodlands this forms a decided acquisition to the Cattleya house. It was originally raised in the gardens of Sir William Marriott, Bart., of Down House, Blandford, from Cattleya Eldorado crossed with *C. Warscewiczii* (gigas) and well combines the characters of the two parents. The seed parent is chiefly distinguished by the rich purple-magenta colour of the labellum and its deep orange-yellow throat. Both features are reproduced to advantage in the hybrid, and are the more conspicuous from the greater size obtained from the pollen parent. The sepals and petals are soft rose, much the same shape as those of *C. Warscewiczii*, but carried more erect. Four of the handsome flowers were carried on the spike, and their great substance, the stoutness of the pedicels, and the glossy green of the leaves speak highly for the culture and point favourably to the use of Belgian leaf-mould, in which substance the plant is growing. The improvement in the plant since this material has been used is most marked, growth, &c., being much superior to any previously obtained.

LÆLIO-CATTELEYA CANHAMIANA was first named and described by Professor Reichenbach in 1885. The parents had not been recorded, but were correctly ascribed to *Lælia purpurata* and *Cattleya Mossiae*. More recent hybrids between the two species mentioned have fully proved the truth of Reichenbach's

hypothesis. Naturally, however, considering the wide variation exhibited by both the parent species the majority of the later raised "*Canhamianas*" differ more or less from the form first raised. Usually the divergence is seen merely in the colour, but a variety flowering with Mr. R. H. Measures shows great superiority both in colour and size, the sepals and petals are clear rose, the petals slightly darkened on the tips and centres; the whole front area of the lip is a vivid crimson-purple, abruptly terminating at the apex of the throat, which is deep ochre-yellow, with dark radiating veins. So far a varietal name has not been given, but next year, when with additional strength, the plant may reasonably be expected to perfect its beauty, it should have a distinguishing name.

CATTELEYA MAXIMA ×

LÆLIA PRESTANS.

A most interesting hybrid between the above parents was also in flower. It has not yet reached its maximum development, and for that reason will not yet receive a name, but is already most promising in appearance. It may be compared to *Lælio-Cattleya Clive*, derived from *Lælia prestans*, crossed with *Cattleya aurea*. Whether or not it will equal in size that fine hybrid remains to be seen. At present the flowers are of medium size, but far darker in colour than would have been anticipated from the parents; in fact, the colour inclines strongly towards that of the *Lælia* parent, though the distinct venation of *Cattleya maxima* is well marked, extending far into the throat on a soft yellow ground, a quite different shade to the old gold colour seen in *L.-C. Clive*.

ARGUTUS.

ROSES FOR ENGLISH GARDENS.\*

THIS new addition to the *Country Life* Library is one of the most welcome of the series, and that the book will meet a great want no one who has watched the remarkable development of garden Roses during the past few years will deny. As the preface points out "One of the surest signs of the great and ever-growing interest in gardening is to be seen in the remarkable improvement in the kinds of flowers that are now to be had. New

\* "Roses for English Gardens." By Miss Gertrude Jekyll and Mr. E. Mawley. *Country Life* Library. Price 12s. 6d. Geo. Newnes, Limited, 7-12, Southampton Street, Covent Garden, London.



ROSE THALIA (WHITE RAMBLER).  
(Reproduced from "Roses for English Gardens")

plants are being constantly introduced; good old plants, of late forgotten, are again brought forward, and a lively and wholesome competitive industry has increased among growers in the improvement of garden flowers. In no class of plant is this more apparent than among Roses. The increasing desire to deck our gardens pictorially has been met by a truly surprising and successful series of efforts on the part of raisers, so that now, in addition to the older classes of Roses that have been available for the last forty years, namely, the Hybrid Perpetuals and Teas, there are already in great variety quantities of beautiful new Roses of mixed parentage for every possible use and purpose. The time having come when there is a distinct need for a book that should not only show how Roses may best be grown, but how they may be most beautifully used, and that will also help the amateur to acquire some idea of their nature and relationships, the present volume, with its large amount of illustrations, is offered in the hope that it will fit usefully into a space as yet unfilled in garden literature."

Miss Jekyll also mentions in her preface that "In order that the book may be a complete Rose manual, I have had the pleasure of working in concert with Mr. Edward Mawley, who, in the second part, gives the result of his long experience as a practical rosarian." There are nearly two hundred illustrations, showing beautiful ways of planting Roses, three of which we reproduce, those representing the exhibition box, filled and unfilled, being with Mr. Mawley's part. It is a



charming book, with useful lists of garden Roses for planting on pergolas, against pillars, and in beds, and information on all phases of garden Roses. Mr. Mawley's part is full of practical hints about Roses for exhibition and under glass. The book is artistically printed and in all ways a publication worthy of the interesting library of which it forms one of the volumes.

### THE BOG GARDEN.

As a pond should naturally occupy the lowest level in the rock garden, so should the bog bed have the next lowest position. Though we may have picturesque rock gardens without either a pond or bog bed, it cannot be denied that both form a very desirable addition. The bog bed will enable us to enliven the scene with a number of charming plants, which, though not strictly of an aquatic nature, love, nevertheless, an abundance of moisture, such as many *Cypripediums*, *Primulas*, *Dodecatheons*, *Pinguiculas*, the Bavarian *Gentian*, &c. In small rock gardens containing neither pond nor streamlet, owing perhaps, to scarcity of water, it may often be the case that the comparatively small quantity of water required for a bog bed is easily obtained. Sometimes even a bog bed might be made, without introducing any water artificially, by utilising only the natural surface drainage of the surrounding land, but as this naturally would be fluctuating, an additional soaking would be required at least occasionally. In many cases the low part of the ground where the bog bed should be might be in itself of a swampy nature, and if so, very little labour will be required to turn such a spot into a picturesque bog garden.

Though the term "bog bed" might be suggestive of a formal bed, there should really be no visible hard-and-fast outline in the rock garden, and the bog bed should be amalgamated with its surroundings in such a way as to make it absolutely impossible to discern its real shape or extent. It is not at all neces-

sary that there should be only one bog bed in a rock garden, but we might have a number of them, and in different positions regarding light. Many of the moisture-loving plants prefer a sunny position, while others delight in shady nooks, and the requirements of the plants to be grown must therefore be our first consideration.

### EDITOR'S TABLE.

#### SEEDLING PINKS.

You were kind enough last year to give me some words of encouragement in my work of raising seedling Pinks. I now venture to send you for your table and opinion blooms of three seedlings which have just come into flower. Those numbered 1 and 2 are from the same capsule, and both pollen and seed parents are single-flowered varieties, the result of several years selection and cross-fertilisation. No. 3 is a hybrid, the produce of a single-flowered rose-coloured Pink, fertilised with pollen from a crimson Sweet William. All three are very floriferous and remarkably vigorous.—SIDNEY HALLAM, *Broomsgrave Road, Sheffield.*

[We are very glad to know that any words of ours have encouraged you to persevere in a most interesting and welcome work, that of improving our garden Pinks. The flowers you send are most promising, No. 1 in particular, a good crimson fringed Pink, reminding one of the beautiful old white fringed Pink, but self bright crimson in colour, and very sweetly scented. No. 3 is a sweet and pretty crimson single. We hope you will keep on with this good work and get other colours. Remember our previous words. The great want is a good flower of the old black and white class. Good types of this probably still exist, most likely in Scotch gardens. We should be very glad to hear of it in any good form. It should be fairly double, though not crowded, and have a very dark chocolate-black blotch at the base of the petal—the darker the better. The petal is rather solid and not much jagged, and it has a delicious scent. If any nurseryman would get up a really good form of this we can assure him that it

would be appreciated. Not only is it much wanted in our gardens, but "there is money in it" for a successful raiser or finder.]

#### ALSTREMERIA MRS. SALTER.

Mr. J. H. Salter, Witham, Essex, sends flowers of this beautiful *Alstroemeria*, which was given an award of merit at the meeting of the Royal Horticultural Society on July 8. It is a very showy form of the *Aurantiaca* group, with immense umbels of flowers, each umbel with eleven flower stems, each bearing three blooms of a brilliant carmine-rose colour, the two centre florets intense yellow, with a few purplish stripes. Its colouring is both brilliant and unusual. We should much like to know its parentage.

#### INTERESTING SHRUBS AND FLOWERS FROM SCOTLAND.

Mr. R. P. Brotherston sends from Tynninghame, N.B., the beautiful *Carpenteria californica*, *Benthamia fragifera*, superb spikes of the deep purple-lilac *Madeira Orchis* (*O. foliosa*), the greyish leaved *Olearia macrodonta*, and *Colutea cruenta*, also remarkably fine fronds of the Bird's-foot Maidenhair Fern (*Adiantum pedatum*). All these were from the open garden, the *Benthamia* having flowered exceptionally well. We usually regard this tree as one only for quite southern gardens.

### SUB-TROPICAL TREES FOR TERRACES AND STEPS.

Those who have watched the growth of an Orange tree for several years will have observed how very slow such growth is. As a result it is practically impossible to ornament a terrace with these trees in boxes, as is done in the Tuileries Gardens, at the Luxembourg, and at Versailles, if one does not possess specimens at least a century old. Neither do *Pomegranates*, *Eugenias*, and *Myrtles*, which are at times used with, or substituted for, Orange trees, more readily attain good proportions. Moreover, all these are becoming rare plants; of a former epoch they are now considered rather as curiosities, and it is as such that those found in the State Orangeries are regarded. In private gardens

for some time past the Common Laurel, or Laurel of Apollo, has been substituted for them. Belgian horticulturists are past-masters in the art of forming standards and pyramids of this evergreen.

The Laurel of Apollo, as everyone knows, is infinitely more hardy, and grows much more rapidly than an Orange tree. However, I have known people refuse at first to use it on account of its sombre foliage and the souvenirs of cookery it invokes. But these disagreeable impressions are easily overcome. They are forgotten in time in the interest inspired by the proved hardiness of the Laurel; the ease of its culture; its practical immunity from disease; and the comparatively small price at which good specimens can be procured.

For similar decorative purposes we should place on the same level, if not before this tree, *Trachycarpus excelsus*, cultivated under the name of *Chamerops excelsa*. No other Palm possesses so many excellent qualities, hardiness, rapid growth, decorative appearance, and easy culture. I put on one side the unique aspect of the tree, which gives a picturesque and exotic appearance to terraces and steps quite foreign to the above-mentioned trees, and which I had an opportunity of observing at Beauregard, where M. Welkes, the head gardener, has a number of strong specimens of *Chamerops excelsa* arranged in front of the château. For rapidity of development, *Chamerops excelsa* yields to no other species; its growth is



ROSE MRS. JOHN LAING (H.P.), ROSY PINK.  
(Reproduced from "Roses for English Gardens.")





EXHIBITION BOX WITH BLOOMS ARRANGED.  
(Reproduced from "Roses for English Gardens.")

quicker than the Orange, Pomegranate, or even the Laurel.

A specimen cultivated in the orangery at Versailles, grown from seed, and sown by the head gardener, my predecessor, in 1860 or 1861, now measures 19 feet high, and the head has a diameter of 8 feet 4 inches. Now, in order to find an Orange tree of such dimensions, one must look amongst specimens at least 150 or 200 years old. I will not dwell upon the safety with which *Chamaerops excelsa* may be wintered in an orangery. It is enough to say that of all evergreen plants that are so wintered, it without doubt best withstands the low temperature and dull light.

It is so much more appropriate to call attention to this vigorous and interesting Palm, as at the present time it is easy to procure strong specimens at reasonable prices from our horticulturists in the south of France, who have veritable nurseries of it in the open air.—GEORGE BELLAIR, in the *Revue Horticole*.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

August 4.—Grantham and District Horticultural Show, Ramsey.

August 5.—Royal Horticultural Society's Committees meet, Drill Hall, Westminster; Leicester Flower Show (two days).

August 7.—Midland Carnation Show, Birmingham (two days).

August 9.—Manchester Carnation Show; Crewe Horticultural Exhibition.

August 12.—Clay Cross Flower Show.

August 13.—Salisbury Horticultural Show.

August 14.—Taunton Dean, Rock Ferry, and Sheffield Horticultural Shows.

August 19.—Royal Horticultural Society's meeting, Drill Hall, Westminster.

August 20.—Shrewsbury floral fête.

### **Verbascum longifolium var. pannosum.**

For several weeks past this plant has been one of the most striking objects in the herbaceous collection at Kew. It is upwards of 7 feet in height, and of imposing appearance. The lower 2 feet consist of a dense rosette of handsome leaves, the largest of which are between 2 feet and 3 feet long, and 6 inches wide, the smaller and upper ones being scarcely one-third the size of the lower ones. The inflorescence rises from the centre of the leaves, and forms a huge, upright, branched raceme more than 5 feet in length. On the lower portion of the flower stem about a score of branches are borne, some of which are nearly 3 feet long. The flowers are borne so abundantly as to almost hide the stem, which, together with the leaves, is covered with a dense whitish

tomentum. The individual flowers are yellow, and larger than those of most *Verbascums*, the largest being rather more than 2 inches across. It would make a good wild garden plant. Most *Verbascums* naturalise readily, and this variety being more showy than the majority would be the best to use.

**Pear tree in full bloom.**—Mr. C. R. S. Cadell, Fox Hill Lodge, Upper Norwood, writes: "In the orchard on Fox Hill there is a Pear tree in full bloom." It is not unusual for both Pear and Apple trees to bear a few flowers in autumn, but it is seldom that there is a large display.

### **A peculiar grafted Laburnum.**

In passing through the beautiful rock and water garden at the Birmingham Botanical Gardens a few days ago my attention was drawn to the peculiar appearance of a certain Laburnum tree. The peculiarity consisted in a number of tufty foreign growths appearing on many of its branches, looking at a distance not unlike bunches of *Mistletoe*. On enquiring of Mr. Latham (the well-known and courteous curator) the reason for this peculiar growth he related the following particulars, which I think may interest some of your readers. The tree was planted as a young sapling about thirty years ago. Soon after planting, as a matter of experiment, a *Cytisus purpureus* was grafted on to the stem. This graft succeeded fairly well for a year or two, but afterwards the stock proved too strong for the branch and it died completely away. In course of time the young tree formed other branches and grew away vigorously, and the fact of the failure of the graft was lost sight of until a few years afterwards, when it was discovered that on many of the branches appeared small growths of *Cytisus purpureus*. These growths have remained ever since, have now attained a good size, and still

retain the true characteristic of *C. purpurea*. They flower freely every year—a little earlier than the Laburnum. This may not be an exceptional experience, but I think it is sufficiently rare to make a note of, and a comment on the same from some of your scientific correspondents could not fail to be interesting and instructive.—OWEN THOMAS.

**Notes from Italy.**—Every subscriber to THE GARDEN must feel grateful for the articles in the numbers for July 5 and 12, entitled "British-raised Roses," in which many new kinds are indexed in a way that saves much time, trouble, and eyesight—those valuable things that to many contributors seem of small value, judging by the vagueness of their lists of plants or bulbs. In the first number a list of some fine Tulips, mostly seen in Holland, is given; notwithstanding that no clue is afforded as to whether these are double or single, late or early, I took the trouble to hunt up the names in the catalogues of two well-known Dutch growers, but could only find our Harlequin, which appears to be a blotched *Murillo*. Living out of England, and having scant opportunities of seeing novelties in the gardening line, I am always glad to make a note of such as correspondents of THE GARDEN mention, and it is a pity when such notes are rendered useless from the want of a little precision. Will "H. P.," who, in the same number refers to the wonderful show that Messrs. Osborn, of Fulham, used to make with their hardy Azaleas, give the names of some of those older varieties now so generally discarded in favour of the more tender tints of the mollis. For many years my English home was close to Osborn's nurseries, and I have the most vivid recollection of the quite dazzling effect produced by their beds of crimson and orange and flame-coloured American Azaleas. When the sun shone on these the effect was almost blinding. I particularly want to know the catalogue name of what is known in England as the "Old Yellow," a very sweet-scented striking Honeysuckle kind of flower, much stronger in growth than the modern tender tints. One can hardly expect a foreign nurseryman to know the plant under that designation.—TUSCAN.

**Strawberry The Laxton.**—I have been asked as to the character of this new Strawberry so far as may be known this season. I think some members of the gardening Press have been to Bedford to see it, but it has not been noticed so far as I have seen. The only holders of the variety being the Messrs. Laxton, it is only from them that knowledge can come. The firm sent up to the Drill Hall, at the meeting on the 8th inst., several boxes of The Laxton fruit, and also of their new Trafalgar. When tasted The Laxton was found to be of the most delicious description, flesh firm, sweet and richly flavoured, having the shape of Royal Sovereign and colour of Sir Joseph Paxton. Its merits evoked the warmest praise. Trafalgar might be said to resemble a fine Sir Charles Napier. Messrs. Laxton stated that in their exposed grounds the May frosts killed all the first bloom on The Laxton, a misfortune unhappily common to other varieties all over the kingdom. It is hoped that when sent out The Laxton will prove to be ahead even of Royal Sovereign.—A. D.

**The Potato crop.**—Growers of Potatoes will do well to closely watch their Potato breadths now, as the fungus spot has shown itself in some localities in a very marked way quite early. The best check to its spreading, of a natural character, no doubt, is plenty of heat, as that to some extent renders the fungoid spores unfertile. If, however, we get frequent thunderstorms and showers, or a return to cold nights and rain, then we may find the disease spreading rapidly. It is useless to evoke the aid of spraying with Bordeaux Mixture once the disease has fastened on the leafage. The sulphate of copper solution will kill the minute spores on the leaf surface, but not after they have penetrated into the leafage or stems. Sprays should commence at once; and be repeated some two to three weeks later if they are to be efficacious. We have suffered little relatively from the disease for several years, but there can be no doubt that the uneven growth seen this season is materially due to latent disease in the seed tubers.—A. D.



**Glut in Strawberries.**—A few weeks ago, when we had a succession of rain, hail, and frost, it was generally anticipated that this would be a bad fruit year, and that there would be a great scarcity of Strawberries. The altered climatic conditions, however, suddenly changed the whole outlook, and the season now promises to be memorable for the large crops of the "king of fruits." The London markets have been completely glutted this week by the heavy consignments of this luscious fruit, and the result has been that no higher price than 1s. 6d. a peck is obtainable. On Monday, in Mr. E. Vinson's fields, no less than 3,000 pecks of Strawberries were picked, being a record gathering on his farm, and before breakfast on Tuesday morning 1,200 peck baskets had been filled by the pickers. On Monday, at Bexley railway station, thirteen truck loads of the fruit were despatched to London, and every day the roads between the Swanley district and London

to thin the shoots occasionally, as by this means light and air are admitted to the branches.—W. DALLIMORE.

**The Winter Heliotrope (*Petasites fragrans*).**—This is one of our true winter-blossoming flowers, blooming in January or February on sunny banks. It is a native plant, and should be very cautiously admitted to the garden proper, as it is one of those free-rooting weeds that are almost impossible to eradicate when once established. It soon forms thick mats of fleshy roots, every joint of which, if broken off and left in the ground, will form a plant. But on the outskirts of the garden, or anywhere where its persistent rooting is not likely to be an annoyance, it should be grown for the sake of its sweet-scented flowers. The photograph from which the reproduction has been made was sent by Mr. Peake, of Norwich, who is doing such good work in practical horticulture among the boys of the Crooke's Place School.

## THE FLOWER GARDEN.

### HYBRIDISING CARNATIONS.

**C**ARNATION cultivation is a most delightful hobby. Everybody that has a love for flowers holds these beautiful sweet-scented blooms in high esteem. They are well adapted for cultivation out of doors, but perhaps more real gratification can be obtained by the amateur by growing them in pots; indeed, in no other way can perfect blooms be obtained and the more delicate sorts induced to produce well-formed and well-marked flowers of the largest size.

Some growers are content to purchase varieties that are offered by specialists or selections they may take a fancy to from what they see at Carnation exhibitions, and then grow them to the best of their ability, but if the amateur has taken the "Carnation fever" badly he will not long be content to proceed on these lines only, but will wish to create for himself new varieties, by the system of hybridisation and the production of seedlings.

This is a worthy ambition, but not one easy of attainment, as the standard of perfection is now very high and is becoming more so every year. Still, a well-directed attempt cannot fail to be productive of great pleasure, and, although many of the seedlings grown may not be of any particular merit, the grower will have the satisfaction of watching the plants develop their buds and flowers; the result, at any rate, will be good for cutting, although perhaps not reaching the state of perfection hoped for or any great advance on existing varieties.

Hybridising Carnations can be carried on perfectly well in the open border, but is better and more certain with pot plants under glass. The principle is precisely the same, whether it be in or out of doors, but the climatic conditions in a cold conservatory are more under control, for even here, in the lovely county of Devon, the seed on plants in the open border will sometimes not ripen, owing to want of sun or too much rain at a critical period, and this valuable crop becomes a dismal failure.

To hybridise Carnations the pollen of one variety must be conveyed from the anthers of one flower to the stigma of another; this is best effected by the aid of a small dry camel's hair brush. I will try to explain clearly the different parts of the Carnation so that the amateur may easily carry out the operation himself. They consist of the pistil, the ovary, and the styles; the ovary is the lower part that contains the embryo seeds which in due

course ripen after having been fertilised, the styles are two or three in number and proceed from the apex of the ovary; it is these styles or horns that have to receive the pollen in the form of a fine dust, obtained from the anthers of another flower. The anthers are small oval bodies, supported by slender stems termed filaments, and the two together form the stamens.

The stamens have to be hunted for amongst the petals of the flower selected to fertilise the parent plant. They are eight, ten, or more in number. The pollen is found in the form of a fine dust lying on the anthers, that is, when it is in a proper condition for transmission.

The best time to hybridise is about the middle of the day, when the sun is high and everything is dry, for if the pollen is not perfectly free and powdery it is not in a proper condition for the purpose; the tips of the styles also should be well curled and the flower in its fullest development of bloom. The styles at that period, in suitable weather, will be found covered with a delicate down; on these the fertilising powder is laid with (as I said before) a finely-pointed dry camel's hair brush. If the operation has been successful the flower will collapse in a very short time and gradually shrivel up; should it be found to be in the same fresh and bright condition next day it is a proof that the bloom has not been inoculated, and the operation must be done again. A really microscopic quantity of the pollen only is necessary for the purpose.

When the flower has been successfully hybridised it must be left on the plant until it is quite dead and dry. It is a good plan to pull out the petals when dry to promote the swelling of the seed-pod and to admit air thereto. This should be done without damage to the styles. When the seed is ripe the pod will assume a brown colour. It should then be removed and laid on a sheet of paper to dry thoroughly, when the seeds can be extracted, stored, and labelled.

By the way, when hybridising it is as well to attach a small label, giving the name of the variety with which the parent plant has been fertilised, and care should be taken to retain this label when the pod is gathered, and, later on, when the seed is sown.

I would impress upon the would-be hybridiser that the start should be made with some definite object in view, as indiscriminate crossing of different plants is not likely to result in anything but failure. For this reason it is as well to have some contrivance of gauze over the ventilating windows or to envelope any special bloom in a small bag of this material to prevent bees that may visit the blooms from promiscuously inoculating them, as it is indeed aggravating just before a large Carnation exhibition, for instance, to find one's best blooms collapse owing to the indiscriminate researches of these insects.

It is a good plan also when a self-coloured Carnation is the object in view to cross the variety with a self-coloured Carnation or a fancy with a fancy, and so on through the several sections into which Carnations are divided. It may interest some of your readers to hear the result of some of my experiences.

Having a large number of plants in pots of the now well-known yellow self Carnation called *Duchess Consuelo*, a variety of tree Carnation raised at Blenheim that grows to a great height and develops an immense bloom, I decided to make certain experimental crosses, with a view of obtaining other colours, but at the same time retaining if possible the peculiar growth of this large tree variety.

I selected this therefore as the parent plant,



THE WINTER HELIOTROPE (*PETASITES FRAGRANS*).  
From a photograph sent by Mr. Peake, of Crooke's Place School, Norwich.)

have been crowded night and day with vehicles, including motor waggons, bearing their freights of Strawberries for the Metropolis.—*Swanley Chronicle*.

***Lonicera flavescens*.**—This is a bushy Honeysuckle from British Columbia of considerable interest. It forms a shapely bush 4 feet or more high, clothed with dark green oval leaves with ciliated margins, glabrous above, but smothered with fine soft hairs on the under surface. The flowering period ranges over a considerable time, the flowers being borne from the axils of the leaves on the current year's shoots; the flowers are yellowish and enclosed in crimson bracts, which are persistent until after the fruit is ripe. The fruit is the size of a large Pea, quite black when ripe. On a single shoot unopened buds, expanded flowers, and ripe fruits are to be found. As in the case of the majority of the Honeysuckles, no special cultural directions are required, as it grows vigorously in any good garden soil. It is advisable



and raised a number of seedlings, about a dozen of which may be considered good. It would occupy too much of your valuable space to describe the colours and peculiarities of all of them, although exceedingly interesting.

These two varieties are perfectly distinct in colour and habit of growth amongst tree Carnations. One is a large scarlet self of a rich blood-red colour, the blooms being at least 4 inches across, and the height of the plant is about 5 feet 6 inches from the top of the pot, after being severely disbudded. It has forty blooms nearly all out at once, and the effect as a decorative plant for the conservatory is most gorgeous. This variety I named Pretoria.

The other is a very lovely novelty of similar growth and height as the foregoing. It is of pure orange colour, the same as that of the well-known border Carnation called Mrs. Reynolds Hole, a colour which as yet has not been found amongst winter-flowering Carnations, Malmaisons or trees. The shape of the flower is excellent, and the calyx sound and perfect in shape. It never bursts, and the shape of the petal is good. The bloom is almost as large as that of Pretoria, but its colour and the peculiar habit of the plant denote a decided advance in this section, and repay me in the pleasure of looking at it alone a hundred times for any time and trouble I have taken in its creation. This novelty I have named Mrs. Weguelin, and I hope I may be successful in producing plants next year for distribution amongst my numerous friends and correspondents.

Dawlish, Devon. H. W. WEGUELIN.

[Mr. Weguelin kindly sent some flowers of the varieties Mrs. Weguelin, a very beautiful buff colour; Duchess Consuelo, pure yellow; and Pretoria, bright crimson.

## NOTES ON HARDY PLANTS

### CAMPANULA ROTUNDIFOLIA.

THE interesting procession of illustrations that have appeared in THE GARDEN portraying the charms of dwarf Bell-flowers makes one desirous of noting the beauty of this native Bluebell as a rock garden plant. The fact of its being a wilding may give this flower a lower place in the estimation of those who only care to have real alpine on their rockeries. Although flowers are generally supposed to appear at their very best as regards grouping, &c., when with their natural surroundings, there are exceptions, and this plant is one. On mead and moor the blue flowers blend rather than form a good contrast in colour with the green grass. On a rockery the flowers are well displayed against the darkly stained rocks.

Of course *Campanula rotundifolia* grows rapidly in the ordinary border, but there it is liable to run out of bounds. Given good soil and a sunny position the strength of the plant is much improved. The stems are too slender to support the numerous blossoms, thus the rocks form a clean rest for the profusion of flowers that open week by week. In such a position they are better seen and appreciated. Several of the varieties of this wilding are excellent, but a clump of the true Bluebell should have a place too. D. S. FISH.

Royal Botanic Gardens, Edinburgh.



THE HARE-BELL (*CAMPANULA ROTUNDIFOLIA*), SHOWING ITS BEAUTY ON THE ROCK GARDEN.

### ALPINE CAMPANULAS.

THESE belong perhaps to the most attractive and useful of rock plants, flowering invariably at a time when early alpine are past and flowering plants on the rockwork are anything but plentiful, the English climate, when the plants are well grown, being rather favourable to the development of this class. They flower almost, as far as the perennial Campanulas are concerned, the whole summer through. With the exception of a few of the high alpine species, which demand special treatment, all grow in a good loamy soil mixed with coarse gritty sand in a half-shady position either on the north-west or west side of the rock garden, fairly moist during the summer months. As they do not root very deeply it is advisable to mulch with a mixture of loam and sand or leaf-mould and loam annually during the early part of the season, as this will promote a greater abundance of flowers of richer colouring.

*C. Allionii*.—A charming little plant with creeping rootstock and recumbent stems, about 3 inches to 5 inches high; the flowers are large and reddish violet, a rare plant in English gardens, though one of the most distinct of alpine. It belongs to the small number of species succeeding best in a fairly sunny position in gravelly or stony soil. I have found it more than once growing on moraines on the Alps of Piedmont in high altitudes and also in the valleys. It is of rather slow growth, and sometimes a little difficult to manage. A similar species is *C. morettiana* and found in the same part of the Alps. It grows at an altitude of about 5,000 feet, invariably in the most inaccessible part in fissures of steep rocky walls; at least I have never seen it anywhere else, and the collecting of it is somewhat hazardous and difficult, and seems to be almost impossible unless one could blast the rocks without injury to the plants to get well-rooted specimens. Consequently, only now and then a small number can be collected, of which only a few survive the rough treatment. Well-established specimens, if planted on the western side of the rockwork between stones, succeed, and are very showy; it is one of the most desirable alpine. The plant is small, forming neat little bushes of ovate-cordate foliage somewhat tomentose. The very pretty flowers are of medium size, bright lilac, and even the smallest plant, if healthy, is covered with flowers.

*C. Raineri*.—In the Eastern Alps and the slopes of the Italian Alps. Although very local, this lovely plant is often seen in various shades of colouring, from deep blue to pale lilac, and lately a pure white form has occurred, and with me this white form, judging by the growth and leaves, is nothing more than a form of the not even nearly allied *C. carpatia alba*. *C. Raineri* grows only a few inches in height, has sturdy stems, thick tomentose leaves, and large, erect flowers. It is blooming here splendidly at the present time, both on the rock garden, border, and in pots. There is also a form in gardens introduced by a Lower Austrian collector quite different to *C. Raineri*, it has greener foliage and less shiny flowers; this I call *C. Pseudo-Raineri*, probably a natural hybrid between *C. turbinata* and *C. Raineri*. Although this form, which I saw first in the garden of the late Mr. Leonard of Guildford under the name of *C. Raineri*, is well worth growing, still I feel sure all who saw the two kinds together would prefer the true old *C. Raineri* for beauty and distinctness.

*C. garganica*.—A pretty old garden plant, succeeding equally well in the border and in pots. I have specimens here which were planted as small-rooted cuttings only about eighteen months ago, being now pyramidal-shaped specimens 1 foot across at the base, and though of creeping or trailing habit, 9 inches in height, with small, heart-shaped leaves, smooth and deep green, turning purplish; the innumerable flowers are small, erect, light purplish blue, with whitish centre. It is very free. Another form with larger silvery grey leaves (*C. garganica hirsuta*), with lilac-coloured flowers, is quite as pretty, but not quite as hardy.

*C. garganica alba*, with small pale lilac or whitish flowers, is another form of *C. garganica*, flowering at the present time everywhere in the garden. The *C. garganica* forms are natives of the Carpathians.

*C. pulla*.—A small plant with oval, light green leaves and nodding deep rich purple-blue flowers. It prefers shady, fairly moist positions, and comes from Eastern Alps and Carpathians. Easily grown in our gardens.

*C. pusilla* (synonymous with *C. pumila*) and *C. cespitosa*.—A common but pretty alpine plentiful in the sub-alpine region of Switzerland and Tyrol, and found in shady, fairly moist positions.



Very close and erect in growth, and 2 inches to 4 inches high; the lanceolate or ovate leaves are light green on thin wiry stems, with nodding small pale blue flowers. Still better is the pure white form, which is even more free flowering than the type. Of this there are two forms, one disappearing almost entirely during the winter, while the other and better one is evergreen, keeping, even during the winter, the ground carpeted with bright green foliage.

*C. G. F. Wilson.*—A garden form (*C. pulla* × *C. turbinata*) with much larger flowers than *C. pulla* and deep purple; it is a really good plant, also the sport with yellow foliage.

*C. muralis* (synonymous with *C. portenschlagiana*), of close growth, not over 2 inches to 3 inches in height, deep green cordate leaves, and small purplish flowers. A quick-growing, free-flowering plant, on which account it is now much used for bedding out. Lower Alps. A finer, slight, tall-growing form with larger, deeper coloured flowers, though not quite as free-growing or flowering as *C. muralis* var. *barvarica* of Bavarian Alps.

*C. tommasiniana.*—A pretty species growing about 9 inches to 1 foot in height, with branched, erect, wiry stems, linear or lanceolate light or silvery green leaves, and long, light blue, or lilac bell-shaped flowers. Dolomites. It is sometimes given as a synonym of *C. waldsteiniana*, but they are quite distinct. This plant grows only 1 inch to 2 inches in height, with silvery grey, roundish, or lanceolate leaves, and small, pale blue nodding flowers appearing at the present time. A neat, very pretty plant of Dalmatia or Istria.

*C. Zoyzii.*—One of the most beautiful of this class; unfortunately also one of the most difficult to keep after the second year. It forms small, dwarf, very neat bushes, about 1 inch to 2 inches in height, with ovate or obovate leaves, light or bright glabrous green. The flowers are small, usually in threes, fringed or hairy inside, light blue, somewhat contracted. Very rare, and only local on the Dolomites.

*C. cenisia* (of the Mont Cenis).—A very dwarf, slow growing species, having small spatulate foliage and dark blue funnel-shaped flowers, with deeply cut lobes. It should be grown in peaty soil or leaf-mould in pots or in fissures on the rockwork. Not of perennial habit, being biennial, is the quaint

*C. thyrsoidea.*—The leaves are linear, hairy, light green, forming a rosette, out of which the stout stem issues, attaining a height from 1 foot to 3 feet. The flowers are large and greenish yellow; the plant is common on the Alps, and easily grown and raised from seeds. Also biennials are *C. alpina* and *C. barbata*, both with large hairy bells of deep blue or purplish blue flowers; they succeed well under the same treatment as the former.

Ashford, Middlesex.

G. REUTHE.

### LILY NOTES.

TAKING the Liliums as a whole they promise to be unusually good this year. The early ones, *L. elegans* vars., were a failure, for they flowered in June, when alternations of pouring rain and tropical sun ruined them—they were either drowned or burnt. *L. croceum* and *L. candidum* have both suffered from the same cause, for their flower buds were well advanced during this queer month and a good many bulbs of *L. croceum* rotted. My poor white Lilies have had a bad time of it lately. A glorious row of them lived in sweet company on the south border of the rosary, a young Cyprus hedge making a perfect background. But, alas! these Cyprus grew like young giants last year, smothering the tall white Lilies. It was decided to shift them to two new groups of evergreen shrubs just formed in a couple of 30 feet

beds in an open spot. *Choisya ternata* and *Cistus ladaniferus*. "Man proposes —" February with its frost and snow, March with easterly gales and utter rainlessness, prevented this, and April was well advanced before they could be moved, about 200, to each bed. Unfortunately, the flower stems were over a foot high, and the wretched weather following did them a great deal of harm; still, about 100 are flowering, small heads of small flowers and short stems, none over 4 feet high, but comforting, as showing they will be much better next season. *L. longiflorum* is looking splendid. The foliage is as sound as under glass, though of much greater substance. Groups have greatly increased; where there were, say, six bulbs planted last year or the year before, there are from nine to a dozen flower heads. I have about 500 of them in the Japanese garden. *L. auratum* is, if anything, even stronger, whilst *L. speciosum* is rampant. Last season they were not so strong as usual, but now (mid-July) the tallest are over 6 feet high. In an Azalea bed about thirty bulbs were planted nearly four years ago. I tried to count the flower stems lately, but got muddled; there are between 150 and 200, with an average of fifteen flower buds to a stem. *L. Henryi* is nearly 7 feet high (a great disadvantage); the strongest one has twenty-five buds. *L. Krameri* is in much better flower than last year. It is a lovely Lily. The tallest is 3 feet 10 inches high, and the week before they opened were just over 6 inches long. The open flower is quite as large, and the exact shape of an average flower of *L. auratum*, one of its supposed parents; indeed, a white one that is amongst these pink ones is like *L. auratum* virginale without the gold bands. *L. Brownii* is also in flower. These have not made the growth of the others, but perhaps their position has something to do with this. They were sun-baked last year and again this spring. None of them have more than one flower (the normal number), but they are unusually large and richly coloured. They have made satisfactory increase, several having flowering young bulbs and others with two to four, with stems 1 foot high. *L. Krameri* increases rapidly, and the young bulbs flower

the second season after showing above ground. There are half a dozen not more than 1 foot high, with opening buds 3 inches to 4 inches long. I say "showing above ground," for I am sure that many Liliums do most of their growth without any leafage. *L. Henryi* has seedlings, but no bulb increase.

The bulb of *L. auratum* seems to continue growing in size, throwing up several flower stems, but not making any offsets till a time comes when the parent bulb "breaks up," a bulblet being formed under each scale. Few or any of these grow, the rotting of the old scale, in our moist winters, being the cause, involving them in the decay; but, if noticed in time, if these seed-like bulblets are planted in a trench of sandy peat they form good flowering bulbs in about three years, and are far stronger than imported ones. The same thing applies to *L. longiflorum*. When one of these "break up" the dozens of little ones should be planted as advised, a cheap and very satisfactory way to stock a garden with good Liliums. One word of advice to beginners in Lilium growing: Always purchase *small* but sound, heavy bulbs, not "gigantic bulbs." There is little or no fear of these "breaking up."

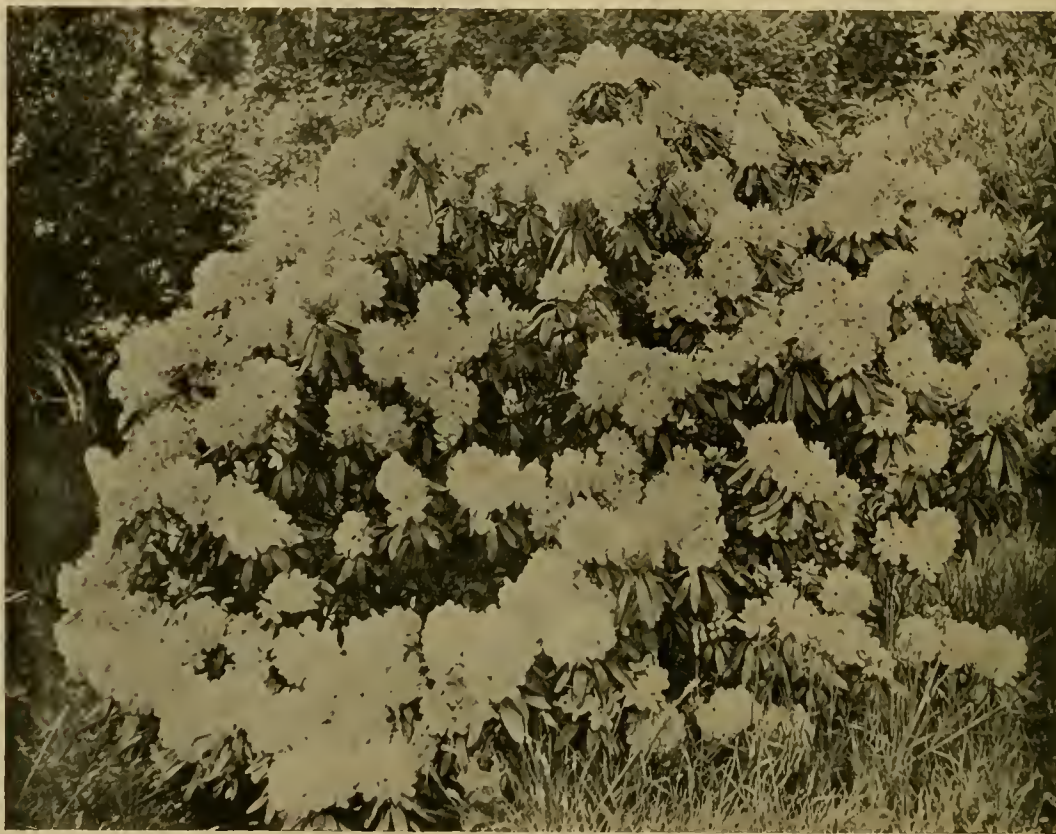
Dartmouth, South Devon.

A. BAYLDON.

### THE PLANTING OF VINES.

(Continued from page 40.)

FOR comparatively weak-growing varieties such as those named, and for Vines hard forced for early supplies of fruit, a distance of 3 feet is sufficient, while the stronger-growing ones and those allowed to start almost naturally should be at least 4 feet apart. Having measured out the positions for each Vine, place a small stick where the cane should be planted; then around each of the sticks, taking each one as the centre, make a hole 3 feet in diameter and sufficiently deep that when the Vine is placed therein it is about 3 inches or 4 inches below the surface. The Vines will, of course, have been grown in pots, and care should be taken when turning them out to damage the



RHODODENDRON PURITY IN AN IRISH GARDEN.



roots as little as possible. It will probably be found that when the Vine is taken from the pot that the roots are quite matted together; to plant the Vine with the roots in this condition would be extremely foolish. They should be disentangled so far as can be done without injury to the roots, that they may be properly spread out at planting and so be placed in contact with new soil at once. If the roots are allowed to remain matted together, as they to some extent inevitably must be when confined within a pot, the probability is that instead of emitting new fibres into the new food all around them, they will not do so, simply because they have not the opportunity. I believe this has much to do with the failure of newly-planted Vines not making a satisfactory start, which, unless the roots are assisted by being placed in a proper and suitable position, they are never likely to.

With the roots thus spread out, the necessity for having the holes made 3 feet wide will now be apparent. Remove the crocks from the base and a little of the soil from the top of the mass of roots, and endeavour to loosen as many of the small roots all around as can be conveniently done. Then place the plant carefully in the hole prepared for it. An important point has not been stated. Make sure that the mass of soil and roots is thoroughly well watered before being taken from the pot. If this is not attended to the results may be very disappointing; indeed, when in the pot the Vine roots and the soil around them can be made properly and thoroughly wet through to the base, but with the plant removed from the pot it is different. There is nothing to prevent the soil from escaping down the sides of the ball of soil, as this mass is technically called, and that is exactly what it does, and when planted in the ground it is also difficult to water it properly once it has become dry, for the water, instead of percolating through the hard and dry mass (as it can be made to do when the plant is in a pot, even if the latter has to be placed in a tank of water), trickles away into the new and more easily permeable soil around.

Always make sure, therefore, that the plant is not in the least in want of water when planted. Providing it is in a properly moist condition, it is not difficult to keep it so afterwards, for water applied will easily go through the ball of soil if this is moist. Even though the latter is buried, it is surprising how quickly it will become dry, so that attention is necessary on this point, for if allowed to suffer from want of water the Vine must be materially checked. With the plant in position, carefully spread out the lowest roots and cover them over with fairly fine soil, drawing this towards the extremities of the roots with the hand. The roots that are above the bottom layer should be held back until the latter are completely covered with soil and this is made firm. Then proceed to lay out the other roots in as natural a manner as possible, and cover them with soil in the same way. They should be slightly sloping away from the plant rather than quite level. Be sure that each layer of roots is carefully placed and covered with soil made firm before the layer above is spread out. Having thus treated the roots all around the Vine, so far as they reach, fill up the remaining space, and also make this firm, leaving the surface somewhat higher than the surrounding border, for the disturbed soil will sink a little.

The prepared border soil that was removed to make the necessary holes will, of course, have been used for the purpose of planting. It is most important that the soil should be made firm as the work of planting proceeds, for Vines planted in a loose border never do well. They are then incapable of making proper root-action, and a

firm border has the effect of encouraging this. It is well to give a mild watering after the planting is finished, so as to settle the soil as much as possible. It should have been mentioned that the stems of the Vines must on no account be placed nearer to the hot-water pipes than 18 inches; unless there is this distance between the two there is a danger of the bark suffering from the heat emitted from the pipes. It is a good plan to place a piece of board behind each Vine to protect the stem from this dry heat when planted too near, and thus avoid any possible danger of harm in that direction. A. P. H.

(To be continued.)

TREES AND SHRUBS.

RHODODENDRONS IN A DONEGAL GARDEN.

I ENCLOSE some photographs of Rhododendrons which I took here in June. It may interest some of your readers to see what can be grown in the North of Ireland, the Donegal Highlands.

Rhododendrons, and, indeed, most plants that flourish in Cornwall, we find do well here. The blooms this year of all varieties have been exceptionally fine.

The following Himalayan Rhododendrons bloomed to perfection here this season out of doors:

- |                  |                   |
|------------------|-------------------|
| R. niveum        | R. nilghiriicum   |
| R. Falconeri     | R. arboreum album |
| R. fulgens       | R. " roseum       |
| R. Thomsoni      | R. nobleanum      |
| R. campylocarpum | R. Edgeworthi     |
| R. cinnabarinum  | R. Gibsoni        |
| R. Keysii        | R. glaucum        |
| R. ciliatum      | R. barbatum       |

Of hybrids the following were particularly good: Manglesii (120 blooms), Coombe Royal, and Luscombei, also all the best of the hybrids known as the Waterer class, of which there is a fine collection, some being exceptionally large plants. CALYPSO.

HARDY HYBRID RHODODENDRONS.

HARDY, evergreen, hybrid Rhododendrons can be divided into several groups, according to parentage. Of these groups by far the most common is that which has originated through the crossing and intercrossing of the Himalayan arboreum with the American species catawbiense, the Caucasian species caucasicum, and the European and Asiatic ponticum. The members of this group are well known by the many handsome hybrids distributed by the firms of Waterer, Noble, Paul, and other well-known growers. Work among these species has been in progress for upwards of half a century, and a high degree of excellence has been attained. The habit of the plants, size of flowers and leaves, colouring, &c., differ according to the predominance of one species over another. Thus, where arboreum asserts itself most strongly, we find rich red flowers and leaves with a silvery under-surface. Where catawbiense is most in evidence the leaves are large and handsome, deep green, and softer to the touch than arboreum, while the trusses are often of immense size, the flowers prettily spotted, and the plants of exceptionally good habit. For very cold districts the catawbiense hybrids are the best, being hardier than the others. The flowers of many of the earliest of the catawbiense hybrids are lilac or purple in colour. The influence of caucasicum is most in evidence in the rose-white and heavily-spotted varieties, while it also gives a share of its sturdy habit to its progeny. R. ponticum shares with catawbiense the honour of pro-



A RHODODENDRON GROUP IN AN IRISH (DONEGAL) GARDEN.



ducing many of the best lilacs and purples, but through so much intercrossing it is difficult to trace the influence of any particular species in many of the newer hybrids. In this group raisers are fastidious with regard to the shape of the inflorescence, the correct thing being a conical truss of symmetrical outline, the flowers being on short stalks and held firmly in the truss. In the *Rhododendron* dell at Kew a great many of these hybrids are to be seen, and in a number of the older ones it is not difficult to trace the influence of the various species mentioned. Some of those which show a considerable amount of *catawbiense* blood are *album elegans*, white with yellow spots; *delicatissimum*, bluish; *everestianum*, lilac with darker spots; *fastuosum* fl.-pl., double lilac; and *purpureum elegans* and *purpureum splendens*, with purple dark spotted flowers. *R. arboreum* blood is very marked in the early flowering bright red *nobleum*, the rich red *russelli-*

in evidence, we find a few very good things. *R. Thomsoni* itself is hardy at Kew, but flowers early, the flowers often being damaged by frost. It grows from 6 feet to 10 feet high, has broadly ovate leaves and loose trusses of six or eight blood red waxy-textured flowers. By crossing this with the fragrant Chinese species *Fortunei*, Mr. Luscombe raised an exceptionally fine plant, which is named *Luscombei*. At Kew there are several specimens which flower superbly every year. It is nearly thirty years since the cross was made, so that plants have now attained their full size. The largest plant at Kew is nearly 8 feet high and 8 feet through. The flowers, which are borne in loose trusses in April, are rich rosy red, tubular, 3 inches across the mouth, and thick in texture; altogether it is an admirable plant.

Another hybrid which originated from a similar cross is called *Francis Thiselton-Dyer*.

largely in Cornwall. It is grown in a cold house at Kew, but may prove hardy, as a small plant has withstood last winter's cold outside without injury.

*R. Harrisii* is the result of crossing *Thomsoni* with *arboreum*. It is a red-flowered hybrid of considerable merit, flowering freely in a small state. It is cultivated at Kew, but has not yet attained any great size. It appears to be perfectly hardy here.

#### GRIFFITHIANUM GROUP.

The group in which the Himalayan species *griffithianum* is most marked is made up of a number of large-flowered hybrids, which vary considerably in size and colour of the flowers. The species itself is represented in some gardens by large bushes; it was introduced about fifty years ago, and grows upwards of 10 feet in height, has large, oblong, bright green leaves, sometimes 9 inches or 10 inches long, and large, pure white flowers—sometimes tinged on the outer side with pink—4 inches or more across, and borne in loose trusses of four to eight flowers each. It is, without doubt, one of the most beautiful of all *Rhododendrons*, but is, unfortunately, not hardy enough to stand out of doors at Kew. By crossing this with hardier species and varieties, however, a race has appeared which includes many varieties that are perfectly hardy and of sterling worth.

Of the group the following are conspicuous among others, and most of them are to be seen growing at Kew:

*Kewense*.—This was raised at Kew in 1874 through crossing—it is said—*griffithianum* with *Hookeri*. It did not flower until fourteen years later, but since that time it has flowered with exceptional freedom annually. It makes a large bush 6 feet or 8 feet high, of wide-spreading habit. The leaves resemble those of *griffithianum* to a great extent, and the flowers in shape and size are very similar. In colour they are a delicate rose, changing to white with age. One advantage is that the flowers are very fragrant. In addition to the true *Kewense*, a form is in cultivation with red flowers. As the flowers of this hybrid commence to expand a pretty effect is produced by the large bright red bracts.

*R. Manglesii* is another very fine hybrid, exceptionally free flowering and deservedly popular. It was sent out by Messrs. Veitch nearly twenty years ago, but does not appear to have become well known until several years later. It was raised by crossing *R. griffithianum* with the *catawbiense* hybrid "*album elegans*." Although the leaves are smaller, the plant resembles its Himalayan parent to a very great extent when not in flower, but when in flower the influence of the American blood is easily detected. The flowers are large and white, the upper petal being spotted with red or reddish brown. A peculiarity of the inflorescence is the long truss, which is much longer than most varieties, but no wider. There are several forms which might all be placed under this one name, as the flowers only differ slightly in size or density of spots.

*R. Pink Pearl*.—This is without doubt one of the finest *Rhododendrons* ever raised, and one which, although sent out but a few years ago, is now in a large number of gardens.



RHODODENDRONS IN IRELAND (DONEGAL).

*anum* and *russellianum* *superbum*, the white, dark spotted *Baron Osy*, the bluish, or almost white, *Blanche superb*, and many others, whilst *R. ponticum* is in evidence in a large number of hybrids.

In addition to this group there are others which, though not so universally grown, are quite as beautiful, and need but to be better known to be appreciated. For a number of years other species, besides those worked on to produce the last-named group, have been taken in hand in several places, notably at Tremough, by Mr. Gill, by Messrs. Waterer, and Veitch, and Paul, at Kew, and in other places, and many fine hybrids are the result. Of these groups representatives are to be found in the *Rhododendron* dell at Kew.

#### THE *R. THOMSONI* GROUP.

Commencing with the group in which the Himalayan species *R. Thomsoni* is very much

It has large, deep rose flowers, with a darker mark at the base of the tube. In habit it is very similar to *Luscombei*.

A variety raised by Mr. Waterer, called *Ascot Brilliant*, is much admired at Kew every year. In the habit of the plant, size of calyx, texture of flowers and loose truss, *Thomsoni* is very much in evidence. It is of dwarf, bushy habit, flowers with remarkable freedom, and of a particularly rich scarlet in colour. It is a plant worthy a place in any collection.

*R. Shilsoni*.—This is a large-growing hybrid raised by Mr. Shilsoni, through crossing *Thomsoni* and *barbatum*, the flowers of both being similar in colour. The hybrid combines the good qualities of both. In stature it resembles *barbatum*, in foliage *Thomsoni* is most in evidence, whilst the truss is compact as in *barbatum*, with the larger, more fleshy flowers of the other parent. It is an exceptionally fine *Rhododendron*, and is cultivated



The leaves and size of flowers point strongly to griffithianum influence. The truss is very large, well formed, and the flowers a delicate shade of pink. The individual flowers are often from 4 inches to 5 inches across. It is perfectly hardy, and has been exhibited many times of late, a fine group of it being exhibited by the raiser, Mr. J. Waterer, of Bagshot, at this year's Temple show. Another new variety of considerable promise, introduced by the raisers of Pink Pearl, is *Mrs. E. C. Stirling*. From the foliage griffithianum seems to have had some share in its parentage. The flowers are large and peculiar in shape, the petals being wide apart and much narrower than in Pink Pearl. The truss is of good size and the flowers rosy lilac in colour.

Besides these there are many other griffithianum hybrids, new ones continually appearing. One of the newer ones is *Beauty of Tremough*, a variety raised by Mr. Gill by crossing with *Thomsoni*. In habit it is very like griffithianum, the flowers being intermediate in shape between the two species, and pink in colour. At Kew it is grown indoors, young plants which were placed outside last year were considerably damaged in the winter. Griffithianum has long been a favourite parent with Mr. Mangles, and he possesses a large number of beautiful hybrids, a few of which are *Liza Stillman*, *Dulcie*

*Daffan*, *Manglesii* var. *delicatum*, *Daphne Daffan*, *Mrs. Mallard*, and various others.

#### FORTUNEI GROUP.

Mr. George Paul, of Cheshunt, has been the principal worker with this group, whilst several

pretty varieties have been raised at Kew. It is a Chinese plant, and when not in flower bears a great likeness to griffithianum. The flowers, however, are quite distinct; they average nearly 3 inches across, are white, deeply suffused with pink, very fragrant, and

distinct by reason of each having seven petals. The progeny are of good habit, flower with great freedom throughout May and early June, are for the most part fragrant, and often have flowers with six petals. A peculiarity of the group is that the stamens are often imperfect. Throughout the group there is not a very great range of colour, pink and deep rose predominating, a few being red. Many of the varieties are prettily spotted or blotched with red or chocolate. The group is not at all well known, which is a great pity, as it contains many first-rate things. An objection has been raised to these hybrids on account of the trusses being rather loose, but this is not at all a defect, as the plants make first-rate shapely bushes and flower profusely every year. There are very few named varieties. At Kew two very pretty ones

were named a few years ago *Mrs. Thiselton-Dyer* and *George Thiselton-Dyer* respectively. They flower profusely, the flowers being very deep rose, blotched at the base with dark brownish marks. The principal difference between the two is that the former is paler than the latter.

An interesting hybrid raised at Kew by crossing *Fortunei* with the variety *Meteor* has flowered well for the last four years. The cross was made in 1893, and the plants flowered when but a few inches high. Several plants have now attained a height of 2½ feet, and are well branched. The flowers are borne in May and are in compact rounded trusses. They are

a delicate shade of pink in colour and fragrant. The great peculiarity of the hybrid is that no plant has perfect stamens, in some the stamens being full size but barren, in others reduced to mere specks, while in others again they are absent. To increase these *Fortunei* hybrids stocks of *Fortunei* are preferable to *ponticum*.

W. DALLIMORE.

(To be continued.)



THE CALIFORNIAN POPPY

(ROMNEYA COULTERI).

(From a drawing by

H. G. Moon.)

## AN ARTIST'S NOTE-BOOK.

### ROMNEYA COULTERI.

I HAVE been unusually successful with this beautiful Bush Poppy for several seasons past. My plants are fully 6 feet high, and are freely bearing their delicate fragrant flowers. The *Romneya* with me in Berkshire is quite hardy. The soil here is warm and of a sandy nature, and appears perfectly to suit this handsome Californian Poppy. Well-developed plants when bearing a good number of flowers are very beautiful and always admired. Those



whose gardens are so situated as to cause misgivings as to the hardness of Romneya Coulteri should plant it against a wall facing south, when, unless conditions are very unfavourable, it will almost certainly prove satisfactory. H. A. P.

## USES OF BRITISH PLANTS.

### IV.—RESEDACEÆ.

(Continued from page 370, Vol. LXI.)

**Weld or Dyer's Weed** (*Reseda Luteola*), common in waste places, is a plant 2 feet to 3 feet high, with a long spike of greenish yellow flowers. It has long been employed as a yellow and green dye-plant for colouring cotton and woollen fabrics. The water-colour called "Dutch pink" is also made from this plant. It has been preferred to other dyes for giving a lively green lemon-yellow to silk and for paper staining.

### VIOLACEÆ.

**Violet** (*Viola odorata*).—Besides their value for their perfume, the petals of the Violet are used in a medicinal syrup for children, though the numerous virtues attributed to the Violet by the mediæval doctors were imaginary. The underground stem is, however, strongly emetic, and resembles ipecacuanha, being employed to adulterate this drug. It is said that the syrup forms a principal ingredient in the oriental sherbet, and that it is eulogised in the Koran, which states that it possesses the same degree of superiority over other flowers that the prophet had above men.

**Heartsease** (*Viola tricolor*) is of no medicinal value, but was supposed to be a good cordial, hence the present name. Turner (sixteenth century) says: "It is cold and moist under the mild influence of Venus." Culpeper (seventeenth century) declares: "The herb is Saturnine, being cold, viscous, and slimy." So doctors disagreed then just as they sometimes do now!

### CARYOPHYLLÆÆ.

**Pinks and Carnations** (*Dianthus*, sp.).—Two naturalised species, doubtless long introduced from the Continent, are the sources of these garden favourites, viz., Pink (*D. plumarius*) and Carnation (*D. Caryophyllus*). The enormous size now attained was foreshadowed in Gerarde's day (1597); for he figured "the great double Carnation" 3 inches in diameter. It was called the Clove Gillyflower, from its scent.

**Soapwort** (*Saponaria officinalis*).—This plant is not uncommon near villages, being sometimes double, with pink or white flowers, flowering in August. The leaves, &c., when boiled and macerated in water become saponaceous, and were formerly used as soap. It was used medicinally, but has no certain virtues.

**Bladder Campion** (*Silene Cucubalus*), a common plant in waste places, having smooth foliage and white petals in an inflated calyx, hence its name. The young shoots are said to resemble green Peas in flavour and supply an excellent vegetable. It is recorded that "in 1685, the crops of Minorca being nearly destroyed by locusts, this plant afforded support to many of the inhabitants."

**Chickweed** (*Stellaria media*).—Though despised as human food and only given to cage birds, this resembles Spinach, and might be used when vegetables are scarce, as it can generally be found all the year round.

### HYPERICACEÆ.

**St. John's Wort** (*Hypericum perforatum*), a common plant with opposite entire leaves and clusters of yellow flowers. It was formerly regarded as a plant which could ward off disasters caused by evil spirits if it be gathered on the Eve of St. John's Day (Midsummer Eve). It was customary to hang it up over doors for this purpose, and was therefore called *Fuga de monum* in the Middle Ages. It was also used as an astringent application to wounds, being one of the ingredients of "Save," mentioned by Chaucer as being used by the knights after being wounded.

The buds will give good red and yellow dyes, and if they are steeped in oil of turpentine will furnish a red varnish.

**Tutsan** (*H. Androsæmum*), so called from the French "tout-sain" or "all-heal." Like the preceding, it was regarded as a vulnerary from its astringent properties.

### MALVACEÆ.

**Mallow** (*Malva sylvestris*).—This and other species are characterised by having much mucilage, and consequently have been used as emollients. The flat fruits called "cheeses" by country children are often eaten by them, as no species of the Malvaceæ is harmful. Several members of the family yield excellent fibres, the Musk Mallow (*M. moschata*) being one of the best for the purpose.

**Marsh Mallow** (*Althæa officinalis*) is a local plant found in marshy meadows, &c., near the sea, having a thick root, rose-coloured flowers, and downy leaves. Its root, which abounds in mucilage, has long been used as an emollient, and forms an ingredient in "pate de guimauve" and Pontefract lozenges. As a syrup it is excellent for bronchial affections, while decoctions of the leaves are good for fomentations. A South European species (*M. parviflora*) is cultivated as a pot herb, as at Cairo.

**Tree Mallow** (*Lavatera arborea*) is found on maritime rocks, growing from 3 feet to 6 feet or more in height and bearing purple flowers. It is often grown in gardens by the seaside.

GEORGE HENSLOW.

## MISCELLANEOUS.

### HARDY GRAPE VINES.

**V**INES, in nine cases out of ten, are not well grown out of doors. Far too much wood is left on the plants to get good bunches, and a good portion of the weaker shoots should be removed when in the bud state or as soon as it can be seen which are the strongest shoots. Only recently I saw some Vines that had been pruned by a so-called gardener—a jobber—and every shoot was close cut in. Later on these were a forest of useless wood and no fruit. With hardy Vines there must be ample thinning, and the cultivator should endeavour yearly to get the fruit on the best wood, and expose and ripen the shoots thoroughly for another season's fruiting. It is necessary to go over the Vines frequently at the early stages of growth, removing any surplus shoots and stopping those bearing bunches at one or two leaves on fruits beyond the bunch, training in those not stopped to the wall at equal distances apart. Avoid overcrowding. Each shoot should have ample room, and as these main leaders make growth at the joints lower down the shoots, these new small shoots should be pinched to the first leaf or joint, and later on rub off or stop growths that are made, thus encouraging the shoots to grow as strongly as possible without impoverishing them by supporting small shoots at their base.

I have frequently heard it said, "Oh, the bunches will not ripen," the season being blamed, whereas often the cultivation is at fault. The leaves should not be allowed to cover the bunches, but this will not be so if disbudding and stopping are properly attended to. Another point often overlooked is thinning. Even with outdoor grapes it is necessary to thin both berry and bunches; the latter should be reduced, only leaving the strongest and best placed.

It often happens that the Vines receive very little feeding, and if the roots have a free root-run they do not suffer much; but in a small border feeding is necessary, and when we see what liberal quantities of food are given to Vines grown for show and the small crop carried, it is evident that to get good berries food is a necessity. Hardy Vines would be much better if fed in the summer months. At times they are planted so that it is impossible to mulch over the roots with decayed manure; the last-named should be employed wherever possible. Failing this a good supply of

liquid manure will do much good, also any quick-acting fertilisers may be given, such as Thomson's Vine manure. This, if well watered in, will do much good. It will be found that Vines left to chance and much crowded often suffer badly from mildew, and the pest frequently attacks plants that are much crowded. I am aware that even well-managed Vines are not exempt, but as soon as ever the mildew is seen means should be taken to arrest its progress. Flowers of sulphur is one of the best remedies, either in a dry state or as a liquid, if used when first observed, by dusting a little dry sulphur over the affected part; it will not spread if used in a liquid state. The sulphur should be dissolved in tepid water. There are some excellent prepared insecticides for this pest, such as Bentley's Mildew Specific. It is not often that open-air Vines get attacked by other pests. If red spider should appear, weak tobacco water or Gishurst will clear the foliage.

I have not referred to varieties; the best white is undoubtedly the Royal Muscadine, an early white Grape, a free grower, having a fine constitution and berries of a rich sweet flavour. This variety is often grown under the name of White Sweetwater. A good black is the Black Cluster, also the Black July—a good black Sweetwater, valuable for its earliness. There are others well worth growing if more variety is needed. The new Reine Olga is a splendid outdoor variety, and should be planted where space allows.

G. WYTHES.

### FRUITS.

CERTAINLY one of the most curious results of evolution in the plant world has been the production of almost innumerable edible fruits of the utmost diversity. Primarily it would seem that a plant had quite fulfilled its, so to speak, maternal duties when it had fashioned a fertilised seed and provided this seed with sufficient material to give it a fair start in life, and the large majority of plants are satisfied with this, producing seeds pure and simple and unaccompanied by any tempting associations of flesh and flavour. Even in these cases, however—our wealth of cereals to wit—man has managed to fatten up these mere seeds by selection until they rank so high among the "fruits of the earth" as to form the "staff of life"—our daily bread. The fruits, however, which we have in mind are of quite a different category. The plants which bear them are not content with the mere provision of a seed. A seed to secure the spread and continuance of its race must, in some way, become scattered abroad. To simply drop prone at the parental feet or roots is to court failure in the struggle for existence by being handicapped from the outset by competition with its progenitor, to mutual disadvantage. Some plants, therefore, bear winged seeds, to be wafted afar by the breeze; others burst their pods so violently as to widely scatter their contents by a sort of explosion; others are armed with hooks, by which they cling to the coats of animals, or even man himself, and so get transported to unlimited distances, and, in fact, to describe Nature's contrivances in this direction would form a book in itself. It must, however, have been an extra slim plant that conceived the idea of basting its seed with a luscious coating over an indigestible husk, and so tempting the animal world to swallow it with a probability of eventual survival, or, as in the case of the Cherry, Plum, and stone fruit generally, tempting the birds of the air to peck and scatter, while in the case of the Bramble tribe, with tiny, hard seeds dotted over the delicate fruits, dissemination is doubtless effected, both by swallowing and by dropping the remains of partly devoured fruits at a distance. The Nut family presents curiously converse cases. The Walnut and Chestnut, for instance, while building up a fleshy envelope to the fruit on parallel lines to the Peach, endow this with external thorns and internal acidity of flavour, designed to prevent them from being eaten, the explanation of which difference lies in adaptation on different evolutionary lines. The hard or better-shelled Nut tribe has armed



itself, speaking generally, against the squirrel tribe, precisely as in the tropics we find the armour-plated Cocoa and Brazil Nuts evolved in the struggle with the monkey's teeth. With the sweet and fleshy fruits, however, man has ample reason to bless the "happy thought," the "slim" idea which led to their adoption, for when he came in as at once a selective and protective factor the plants speedily expressed their gratitude for his careful tending by increasing the volume of the luscious reward, or, what is very much to the point, those who did not were speedily eliminated. As a marked example of what he has done in this line, we may quote the hard and tough-fleshed wild Almond as an example of the repellant tribe which has undoubtedly been transformed bit by bit into the opposite extreme of the attractive, the Peach and Nectarine, and in fact we have only to contrast most wild fruits with the highly-developed cultivated ones to find differences nearly as great. A very curious fact in this connexion is, as we see in some Grapes, Oranges, Bananas, &c., that the plants have responded so generously to continued selection of the "bait" portion of their economy that they have clean forgotten the primary reason of its existence, viz., the precious and all-important seed. Even where it is not forgotten, in other cases the seed is, as a rule, utterly incapable of reproducing the parent form, and is essentially a wastrel, the reproductive vigour of the plant having been exhausted or depleted by the abnormal growth of the attractive pulp, a curious perversion of Nature's provisions by man's intervention.

CHAS. T. DRURY, F.L.S., V.M.H.

## THE ROSE GARDEN.

### HYBRID BRIAR ROSE UNA.

OF the many early-flowering garden Roses that hybridists have given us, the above variety must be regarded as one of the best. The handsome tawny-yellow, Tea-like buds expand into fine large blossoms of quite 4 inches diameter, bearing two rows of petals of a lovely creamy white shade of colour. The flowers are produced in clusters of from three to six, and appear all along the growths if these latter are left to their own devices. The huge bed of Una at Kew, some 70 feet in circumference, contained but fifteen plants, and yet very little of the ground was visible. Some of the long shoots were crawling quite along the ground and studded with beautiful flowers, presenting a most unique appearance.

The growth of the Rose is Briar-like in its robustness, but exhibits its hybrid nature in the reddish foliage, wood, and prickles. Una would be a delightful Rose to mingle with the Penzance Briars or Carmine Pillar, but I think hedges of this kind will be in most request. A raised bank of good loam, planted on its summit with Una and just left to run wild, would make an ideal Rose hedge. There is no form in which such Roses are better displayed than in arched growths, and, of course, one makes this possible by planting on raised banks.

P.

### SUMMER PLANTING OF OWN-ROOT ROSES.

At the time of writing we are having a downpour of rain which has made the land unsuitable for

planting, but as soon as possible own-root Roses should be planted, as they will quickly take hold of the soil now that it has become warm. Plants struck in March are now in 5-inch pots and are in splendid condition for planting out. They will make grand little specimens by the autumn if the work is not delayed. A liberal amount of grit should be incorporated with the soil when planting. If one desires to establish a collection of own-root plants it is much better to begin now than to wait until autumn, as by so doing delicate kinds are more easily procurable, and they also become hardened to our climate.

Do not plant deeply, but it is important the soil be well and deeply worked. Own-root Roses do not crave for rich food; in fact, it is very detrimental to their well-being at first, but having such fine roots the soil must be porous and free from lumpiness. Considerable patience is required in dealing with own-root plants. In the first place they are smaller than budded or grafted ones, and one should not weaken them by permitting them to flower the first year. I believe in a rigid plan of pinching off all flower buds the first year, and moreover, the branches, where crowded, should be carefully tied out; in fact, everything possible should be done to assist these little plants to develop into sturdy bushes.

P.

### A BEAUTIFUL NEW RUGOSA ROSE.

THE maiden's blush colour among Roses is always acceptable. There is a delightful freshness about the tint that appeals to all. M. Guillot introduced last year a very good addition to the Rugosas under the name of Mercedes, and from all appearances the variety is quite distinct. It is a very beautiful Rose, with flowers of a soft rosy pink colour on a white ground. They are fairly large and of fine shape. It is to be hoped we shall have more of these bright colours. Hitherto this section has been wanting in freshness of colour, there being too many washy pinks. The richly coloured variety *Atropurpurea* I like very much. It is certainly a most distinct kind, probably the forerunner of even darker hues. I quite expect that the Rugosa Roses will be considerably improved in the near future now that hybridisers are turning their attention to the group, and all lovers of this hardy race will welcome them. The



ROSE UNA IN FLOWER IN THE ROYAL GARDENS, KEW.

(The photograph represents a bed 70 feet in circumference, and only fifteen plants.)

planting of Roses of this description in woods for cover, and also in the wild garden, is growing in popularity. At one time it was the common pink form that was used, but there is no reason why varieties producing better flowers should not be so used, especially if raised from layers or cuttings, so that wild suckers are not troublesome.

PHILOMEL.

## BOOKS.

### The Primrose and Darwinism.\*—

This title is scarcely appropriate, as "Darwinism" is always understood to mean Darwin's theory of the origin of species by means of natural selection. Here it is Darwin's methods of experimenting on the fertilisation of flowers. It is an unsparing indictment of those methods, as given in his book, "Cross and Self-fertilisation of Plants." As a consequence we find their results, according to the author, to be often fallacious. It was long ago shown that Darwin's conditions, so far as they concerned the supposed absolute benefit resulting from crossing, were not altogether trustworthy; first, in that he neglected to examine or experiment with small-flowered plants, which are habitually self-fertilised in nature, such as Shepherd's Purse, Chickweed, Knot-grass, &c.; but he also failed to see that his own experiments only proved that the artificial crossing was but a temporary stimulus, and that when some plants were crossed for a few generations, and others of the same kind were regularly self-fertilised, though the former appeared to be benefited at first, the latter gradually gained the ascendancy and beat them in the long run. Hence, if we regard a healthy life, wide dispersion, and the production of many good seeds as the "seeds" of plant-life, there is no denying the obvious fact that self-fertilising insignificant-looking weeds, such as Groundsel, Black Solanum, and the others mentioned are pretty well cosmopolitan. The author takes up an additional line and argues that by growing his experimental plants under a close-meshed net, Darwin thereby greatly reduced the influence of the sun's rays upon the maturation of the pollen, he deprived the flowers of dew by

\* "The Primrose and Darwinism." By a Field Naturalist, M.A., Camb. Grant Richards, London. 1902.



arresting radiation, and prevented the wind from reaching the flowers. He takes the dimorphic Primrose as the subject of his main contention and whereon to base his discourse, and it cannot be denied that he makes out a good case against some of Darwin's conclusions, though it must be borne in mind that the author has not proved *experimentally* the value of the three agencies to which he refers. They are, therefore, though plausible, *à priori* assumptions. When, therefore, Darwin charges a plant with "sterility," because it bore no seed under the net, the author maintains that it is no proof that the plant would be sterile, growing naturally wild, and that in many cases the sterility was actually caused by the net. His words are: "Minimise the sun, the dew, the wind, and other atmospheric agencies in such a way as practised in these experiments and not all the insects in the world would have caused sound and full fertility." He criticises Darwin's terms "legitimate" and "illegitimate" unions among Primroses, saying: "Surely when Nature herself unites stamens and stigma in the same corolla, that is Nature's 'legitimate union,'" the obvious retort is that though such is the case in Orchids the pollen cannot reach the stigma without insect agency; and that, too, of some other flower, as the bee quits it as soon as the pollinia are abstracted. But he appears to lose sight of the fact that when self-fertilisation is the normal process in a flower the anthers are placed in actual contact with the stigma, as may be seen in Shepherd's Purse, small-flowered Epilobiums, Knot-grass, and all cleistogamous flower-buds, so that when these organs are wide apart or strongly dichogamous, then the *à priori* inference is of an opposite kind. The author, in his way, sometimes seems to be as positive as Darwin himself. That Darwin was strongly impressed with the notion that crossing was of vast importance is obvious, coupled with a corresponding depreciation of self-fertilisation, and no one can read his book without seeing this bias at every turn. The difficulty seems to be to hold the balance evenly. Our own impression is that as soon as stamens and pistil were formed in the same flower, in the course of evolution, self-fertilisation was from that time the primeval method, but that by the coming of insects it was, so to say, upset. The stimulation induced on protoplasm resulted in the innumerable differentiations we now see in the structure of flowers; among these are the stamens maturing before the stigma (protandry), the development of corollas and other coloured organs, the production of honey, irregularity as issuing out of regularity, &c. But all these things have occurred, not for any special benefit to the plant, but because they could not help it. The protoplasm builds up structures in response to external impulses, and the results may be magnificent flowers (as those so "made" by florists), but it is done at the loss of fertility, as florists only too well know, and as may be seen in Orchids. Nature seems sometimes, as it were, to protest against it: as in the frequent homostylism seen in Primroses, outcrossed by the author, and we may add in the presence of cleistogamy against the barren but perfect flowers of Violets, &c. The author discusses so many more matters than space will allow us to refer to; but it must be added that he appears to have spared no pains in observing for himself the habits of the plants mentioned in his book, which Darwin experimented upon under the nets, and often with very different results. The very fact that insects do not play so frequent a part in crossing such flowers as the Primrose, Daffodil, and many others, as Darwin seemed to think absolutely necessary, is obvious to any keen observer in early spring. Similarly with Red Clover Darwin's well known and amusing but hypothetical correlations between Clover, humble-bees, field mice, cats, and—someone suggested—elderly ladies, has long since been proved to be merely fictitious, as the Red Clover gave plenty of seed in the Colonies before the humble-bees were ever imported. It is rather a pity this book was not published in the seventh decade of the last century, instead of appearing nearly thirty years after the date of Darwin's book, viz., 1876. However, it is always desirable

to strive after the truth in anything, and if the author seems to be a little too eager at times to substitute self-fertilisation in opposition to Darwin's view of crossing, his book will do good if it shows any enthusiastic Darwinian that that great observer did not always say the last word.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### FERNS.

**M**ANY species are now growing freely, calling for a general overhauling of the stock of plants. Many of the stronger growing varieties will benefit if repotted now, so that they can get established while growth is active. *Adiantum cuneatum* and similar varieties that have been used for house decoration may be cut over and repotted. These will form useful plants during the winter months. A suitable compost for most Ferns is one consisting of three parts turfy loam, the small particles shaken out, and one part leaf-soil, with a liberal admixture of coarse silver sand and crushed charcoal. The plants should be potted firmly and the soil well drained. Syringe the sides of the pots and maintain a warm moist atmosphere. Water with care until the plants begin to grow, when they should be given abundance of moisture at the roots.

#### HYDRANGEAS.

In order to raise a stock of plants for next year's flowering cuttings should be taken with a heel of the strong shoots which have not flowered. Insert singly in small pots filled with light sandy soil, and place on a half-spent hot-bed, where they will soon root.

#### ACHIMENES

that are passing out of flower and showing signs of decay should be gradually dried off. Later batches coming into flower should be given cooler treatment, but not a too dry atmosphere or spider and thrip will be troublesome. The latest batches must be grown on in a light and moist position near the glass to encourage a sturdy growth. Stake and tie the young shoots, the tallest in the centre, and let the others slope outwardly. Give manure water occasionally.

#### GESNERAS.

The earliest of these are now flowering and should be given a cooler atmosphere. Later batches should be grown on, and given similar treatment as recommended for Achimenes.

#### SHOW AND FANCY PELARGONIUMS.

As the plants pass out of flower cut them close down. Until the buds begin to push little water must be given, except slight sprinklings with the syringe. Cuttings should still be put in small pots in light sandy loam and placed in a cold frame.

JOHN FLEMING.

Wexham Park Gardens, Slough.

### THE FRUIT GARDEN.

#### VINES.

THE Black Hamburgh and other early Vines that have furnished a supply of fruit should, when this is gathered, if the wood is not properly matured, be treated with a view to satisfactorily accomplishing that end and thus secure a good prospect for next year. Their vigour must therefore be maintained by the borders, which, for early Vines at least, are best placed inside the house, being sufficiently supplied with water and liquid manure, or, previous to watering, a dressing of a suitable artificial compound should be given, at the same time remulch, if it is necessary, with short litter. If the Vines are affected with red spider spray daily with insecticide until all traces of it have disappeared, and subsequently keep the foliage clean by syringing and the subterminal growths moderately restricted, so that the principal buds are encouraged to develop fully. Keep the structure ventilated so that a buoyant atmosphere is con-

stantly upheld until the wood is properly matured; the house should then be fully opened, and the foliage of the Vines kept clean by being occasionally syringed, the object being to thoroughly mature the wood, which cannot, however, be satisfactorily done unless the foliage is kept healthy, and decays naturally.

#### LATE VINERIES.

The intensely hot weather that lately suddenly succeeded a spell of cold necessitated much care being taken to prevent injury from scalding of the berries and foliage of Vines. We took timely precaution to prevent this by devoting extra care to ventilation, affording artificial warmth at night and by slightly shading the houses containing Lady Downe's Seedling, Muscat of Alexandria, &c., that are more or less prone to have berries scalded during the stoning period. This mode of treatment prevents condensation of moisture upon the berries, which readily takes place, and works much mischief if a sudden rise in the temperature from solar influence occurs while the berries are cold. The ventilation should be increased early and frequently on bright days, but avoid checking the growth of the Vines by admitting cold air too freely at once. Regularly stop sublaterals, so that the fruit-bearing wood is not crowded or the fruit unduly shaded, although more freedom of growth, in order to encourage free root action, may be allowed at the top of the rods.

#### MILDEW.

Should this attack the Vines its progress should be at once stopped by the aid of sulphur, for if neglected it quickly works disastrous results. For Vines carrying fruit sulphur is best employed by first heating the hot-water pipes, damping them with a wet cloth, and then dusting with flowers of sulphur before the house is closed for the day. Highly increasing the fire-heat after the house is closed will cause fumes to arise which will effectually destroy the fungus. This disease is usually caused by maintaining a low temperature, accompanied with too much atmospheric moisture.

T. COOMBER.

The Hendre Gardens, Monmouth.

### THE KITCHEN GARDEN.

#### WINTER GREENS.

If for want of room or from any other cause the planting of the various kinds of Broccoli, Savoys, and Borecoles has been delayed, no time should be lost in getting them out into their permanent quarters, and give every assistance by watering and mulching to induce them to grow away freely. Savoys are often most useful when planted late; indeed, the earlier ones are of little use in large establishments as they are generally preferred during mid-winter and early spring, when unquestionably the flavour is much better; but, unlike the earlier plantings, the ground should be well manured and deeply dug, and the surface soil kept constantly stirred with the hoe. Vacant plots of ground, such as those which have been occupied with early Cauliflowers, should be cleared of the old leaves and stems, and the roots should not be dug in but taken away and burnt. The ground should receive a good dressing of farmyard manure and be bastard trenched. Apply a good coating of burnt refuse taken from the smother heap and soot and fresh lime to the surface. This is a capital place for sowing Winter Spinach and Tripoli Onions next month. Winter Spinach is often a very precarious crop in many parts of the country, and to ensure success several sowings should be made at various times onward till October, and in different parts of the garden, as it is a vegetable much in request in most gardens. New Zealand Spinach should be kept well supplied with water during dry weather when the quality will be much improved.

#### ENDIVE.

To ensure a good supply make small sowings every ten days or so, and plant out on good ground when ready. The earlier crops must not suffer for want of water or it will be of little use at this season. Begin to blanch it when about half grown, either by tying it up like Lettuce or by



placing flower-pots over it. The latter is a simple and very good plan, but it must be examined occasionally to see that it is not damping.

#### LETTUCE.

Make frequent sowings of both Cabbage and Cos varieties. Hicks' hardy white is a capital kind to sow now and onwards. Plant out, when ready, on a south or west border on rich, deeply dug ground.

#### CHICORY AND DANDELION.

The later sowings should be thinned and the ground kept constantly hoed, as good strong plants should be ensured before winter.

#### RADISHES.

Make a small sowing every ten days or a fortnight of French Breakfast on ground of a fine tilth, and keep well watered to promote a quick growth. Net the seed securely against birds.

#### VEGETABLE MARROWS.

These should now be bearing abundantly, and to ensure a late crop the fruit should be kept cut as soon as large enough, and the plants well supplied with water both at the roots and overhead. Should any signs of mildew appear dust thoroughly with sulphur, and in case of black fly syringe with strong soft soap and water.

#### ONIONS.

Those being grown to produce large bulbs should be kept well drenched with water during dry weather and syringed overhead in the early evening. This will greatly assist their development. Those which were planted to produce seed must have the heads carefully supported and exposed to the sun as much as possible. Mulch between them with long litter, and keep well watered both with clear water and farmyard liquid, as the better the seed so much better will be the plants the following season. E. BECKETT.

*Aldenham House Gardens, Elstree.*

#### ORCHIDS.

##### MILTONIA ROEZLII.

AMONG our warm-growing Orchids *M. Roezlii* is one of the most useful; the flowers are large and flat, white, with a purple blotch on each petal, the variety album being pure white except for the yellow shading at the base of the lip. Many of the plants begin to grow at this season, and should therefore be repotted if they require more rooting space, fibrous peat and sphagnum moss in equal proportions being a suitable compost. The drainage must be ample, as the plants need abundance of water when growing, and at no time should they become more than slightly dry at the root. Previous to repotting sponge the plants and carefully examine them for thrip. Should any be present they should be dipped in some insecticide and sprayed overhead twice a day throughout the summer months and be grown in a moist and shady stove.

##### MILTONIA VEXILLARIA

should be grown by all lovers of Orchids. Like *Miltonia Roezlii*, it is a handsome and showy species, the flowers large, flat, and very variable, usually lilac-rose, deepening to dark rose, lip very large, usually darker than other parts of the flower. There are many fine varieties. The majority of the plants have begun growing, and should have attention in the way of cleaning, repotting, &c. Use for compost equal proportions of peat and moss, and Fern roots picked from the peat as substitute for crocks. The plants should be kept slightly on the dry side until the roots have taken to the fresh material and the growths further advanced. These are best grown in the cool intermediate house where plenty of fresh air is admitted.

##### MILTONIOPSIS BLEUANA (SYN. MILTONIA BLEUANA).

This is a handsome hybrid, the result of crossing *M. vexillaria* with *M. Roezlii*. The variety *Nobilior* is perhaps the most beautiful; the flowers are very large, of the purest white, petals rose-purple at the base, with a large reddish brown blotch on the lip, the base of the lip being chrome-yellow. This hybrid thrives best with *M. Roezlii*, and should have treatment identical with that species.

##### CYRTOCHILUM MACULATUM (SYN. ONCIDIUM MACULATUM).

This, though not a showy Orchid, is worth growing, and should be in every collection, though seldom seen exhibited. It has stout pseudo-bulbs, 3 inches to 4 inches high, leaves 7 inches or more long, flower scapes 1 foot to 2 feet high, sometimes branching, bearing many flowers in sprig, which are about 2 inches across; the sepals and petals are yellowish green, heavily blotched with chestnut-brown, lip whitish, passing into yellow on the apical half. It should be grown in the cool intermediate house, with the *Anguloas*, *Cymbidiums*, *Miltonia vexillaria*, &c.; it is again

lip lemon-yellow spotted with red-brown. This also has a period of rest, and during that time should be kept somewhat drier at the root, otherwise it should be grown with and have the same treatment as the *Crispum* section of *Odontoglossums*. F. W. THURGOOD.

*Rossllyn Gardens, Stamford Hill, N.*

## THE FRUIT GARDEN.

### NECTARINE LORD NAPIER

OF late years we have had several valuable additions to the early varieties of Nectarines—good forcing ones especially—but the old variety that we herewith illustrate—Lord Napier—is still a favourite, and is perhaps as largely grown as any early Nectarine. For its cropping powers and quality of fruit it is hard to beat. The value of such grand sorts as Cardinal



FRUITS OF NECTARINE LORD NAPIER PACKED FOR MARKET.

beginning to grow, and should be repotted if necessary in the usual compost, peat and sphagnum moss.

##### ODONTOGLOSSUM LEVE.

This is a strong-growing cool house Orchid, having large pseudo-bulbs and branching spikes 2 feet to 3 feet long; the flowers are fragrant, 2 inches or more across, the sepals and petals dark brown, tipped and barred with greenish yellow; lip pale lilac-purple, white at the apex. The variety *Reichenheimii* has yellowish green sepals and petals, barred with purplish brown; lip variable in colour, usually light purple. These plants have a decided period of rest, and during that time should have sufficient water only to keep the bulbs plump. Repotting should take place when growth begins. Use as compost peat, moss, and leaf soil in equal proportions, and Fern roots in place of crocks.

##### ODONTOGLOSSUM PARDINUM

is a very pretty and distinct *Odontoglossum*, having erect branched flower spikes 2 feet or more high. The flowers are fragrant, about 2 inches across, sepals lemon-yellow, petals and

and Rivers' Early are not minimised by such a statement, but those who grow fruit for table from June to September will not fail to agree that the older variety is still one of the most valuable fruits we have. Nectarine Lord Napier was one of the earlier introductions of Mr. Rivers. Packed as is shown in the accompanying illustration, with a piece of cotton wool around them, these fruits will travel long distances to market without the least injury. T.

### FRUIT GROWING IN CEYLON.

*Uva* has long been known for its fruit, and it has undoubtedly a future as a fruit-producing country which will sooner or later receive increased attention from planters. We lately received a box of delicious *Uva* Peaches, sent to us by a prominent planter, which were excellent in flavour and of good size and appearance. But an examination of the rates the Ceylon Government demands on small parcels of fruit, &c., makes it apparent that, until a very considerable alteration in these is brought



about, the extension of *petit culture* will not develop on the Uva side. We have enquired the cost of sending 19lb. of fruit, eggs, and vegetables from Naputale to the Fort Station, and find the charge is R. 1.90; but fruit and eggs can be sent at half parcels rate if an agreement is made with the general manager. Compare these rates with the encouragement given to vegetable and fruit growers on the Great Eastern Railway by the price, fourpence per 20lb., of fruit and garden produce, charged from any station on its line to London, and we are not at all sure that this does not include also the return of empties free. The result of this forward policy of this railway is that it has attracted a large number of market gardeners, small farmers, and others who have embarked on this pleasant mode of earning a livelihood, and this class in the summer supplement their incomes by the letting of rooms to Londoners and others, and thus the railway is additionally recouped for its public spirit by the largely increased flow of excursionists and travellers over its line. There is an increasing demand in the capital of Ceylon for fruit and garden produce; and we feel assured that, were the price for rail transit of parcels of such culture brought down to a popular rate, the extension of fruit cultivation and market gardens would expand to the benefit of the growers, the householders of Colombo, and the large number of vessels calling here.—*Times of Ceylon*.

## NOTES FROM SCOTLAND.

### ROUND EDINBURGH.

MESSESS. R. B. LAIRD AND SONS, LIMITED, Pink Hill, Edinburgh, cultivate a most charming biennial called

### CHERONIA INIFERA.

The habit of the plant is rather straggling, the shoots being slender, though thickly arranged, but most profusely flowered, the blooms being a pleasing shade of rosy pink, and specimens exhibited in the Music Hall on the 16th attracted considerable attention on account of their general effectiveness. I believe this is the first time it has been produced in Scotland, though it has been cultivated round London for some time.

### PRINCES STREET GARDENS.

After the spring display of Tulips the beds are somewhat sombre in their summer dress, but they are already, despite the backward nature of the season, becoming daily more attractive. In the West Gardens an effective bit of carpet bedding adjoins the stairs at Pope's statue, and the long border alongside the railway is quite gay in yellow and blue. The superintendent has had to prepare plans for the grounds of a new hospital, which will require some £5,000 to carry out successfully.

### MR. RICHARDSON.

This gentleman has now retired from the position of head gardener in the Royal Botanic Gardens, his successor being Mr. Harrow, previously the clever manager of the glass department. Mr. Richardson's health has been rather unsatisfactory for some months, and he contemplates a tour among the Swedish forests as a means of regaining his usual vigour. At the same time he will study methods of forestry. Mr. Richardson's many friends are at present joining together to bestow upon him some tangible mark of their appreciation of his services to forestry and horticulture.

### METHVEN'S JUNE BROCCOLI.

This remarkably fine late Broccoli, lasting this season into July, has proved one of the hardiest, as well as one of the latest, varieties. In many Scottish gardens the winter destroyed all the Broccolis, and in the few cases where they survived the above has been prominent, occasionally being the only variety left unscathed. Methven's June was distributed for the first time some years ago by Messrs. Thos. Methven and Sons, the well-known Edinburgh seedsmen. Mention may be made, too, of an April variety, also raised near Edinburgh, which is in many respects the best of that season. I refer to Gordon's Niddrie.

Protecting, raised many years ago by the late James Gordon. The head is pure white, deeply conical in form, and a variety that finds a place in all gardens where the best sorts of vegetables are cultivated.

### THE SCHOOL OF GARDENING FOR WOMEN.

I was very pleased to hear that this new venture at Inveresk, near Edinburgh, has, since its commencement in January, been fairly successful, not a few ladies from the West End attending the lectures, in addition to the ordinary pupils, who may contemplate some form of gardening as a means of gaining a livelihood. One of the features has been a course of lectures on bouquet making by a skilled bouquetist from the city. "The School" exhibited some examples of its horticultural skill at the show held in the Music Hall lately, and were awarded a medal.

### A FLOWER SHOW.

A very pleasant meeting of garden lovers of all classes took place in the Music Hall, Edinburgh, on the 16th inst., on the occasion of a flower show held under the joint auspices of the Royal Caledonian and the Scottish Horticultural Association. There were grand Roses from Mr. Dickson, Belfast, who secured a gold medal and two certificates, and from Messrs. Croll, Dundee (silver medal). Sweet Peas in variety came from Mrs. Wauchope's garden (silver medal), and from Mr. Eckford, Wem. A grand collection of cut herbaceous flowers from Messrs. Cunninghame, Fraser and Co., Comely Bank (gold medal); Gailardias from Messrs. Kelway and Sons, Langport; Carnations and Peonies, the former remarkably fine, from Messrs. Laing and Mather, Kelso; Carnations chiefly from Mr. Kidd (Lord Elphinstone's gardener), Carberry Towers (gold medal); and from Mr. Campbell, Blantyre (silver medal), mostly choice named seedlings. An altogether attractive collection of vases of cut flowers beautifully arranged and bouquets from Messrs. Todd and Co. also received a gold medal. Immense single Begonias from Messrs. Storrie and Storrie, Dundee, attracted great attention; a cultural certificate and a silver medal marking the high opinion of the adjudicator. Very little fruit was shown, a few Strawberries, Figs, Grapes, and Pine-apples mostly. Water Lilies, Gloxinias, Pæonies, Roses, &c., were shown by other exhibitors. The one drawback to the success of the show was the small attendance of the general public. Messrs. Loney and P. Murray Thomson, joint secretaries, deserve all praise for the success of the show, the first of its kind, but let us hope by no means the last.

R. E.

## SOCIETIES.

### HARROW HORTICULTURAL SOCIETY.

THE annual meeting of the above society took place on Tuesday, July 8, in the delightful grounds of Kennet House, the residence of J. Charles, Esq. The weather was all that could be desired. The chief attraction was the Roses, in which many of the leading growers entered into competition, both tradesmen and amateurs.

In the principal class for thirty-six distinct, Messrs. B. R. Cant and Sons, of Colchester, were placed first, many of their blooms being very fine. The back row contained Her Majesty, Ulrich Brunner, Mrs. J. Laing, Marie Baumann, Mildred Grant, Gustave Pigeaneau, S. M. Rodocanachi, Marchioness of Londonderry, Lady Marie Fitzwilliam, Caroline Testout, A. K. Williams, and Marchioness of Dufferin. Middle row: Le Havre, Papa Lambert, Comtesse de Landre, Mme. de Ramey, Prince Arthur, Bessie Brown, Tom Wood, Innocent Pirola, Dr. Andry, Muriel Graham, Duke of Wellington, and Merveille de Lyon. Front row: Helen Keller, Dr. Sewell, Mme. Hoste, Jean Luppert, Frau Karl Bruchnick, Marchioness of Devonshire, Mme. G. Luizet, Xavier Olibo, Ulster, Reynolds Hole, Mrs. Cochet, and Dupuy Jamin.

The second prize was given to Messrs. D. Prior and Sons, which must have run the first prize set uncomfortably close, their blooms being very fresh, large, even, and well formed; the third prize going to Messrs. Paul and Sons with good flowers, out of which was selected the best bloom in the show, a very fine specimen of Bessie Brown.

For twelve Teas, Mr. George Prince, of Oxford, was a good first, staging fine blooms; Messrs. Prior second, and Messrs. B. R. Cant and Sons third.

For twelve bunches of garden Roses, distinct, Messrs. Paul and Son were a splendid first, staging them in their well-known style, the varieties being Lady Buttersea, Marquise de Salisbury, W. A. Richardson, L'Innocence, Dawn,

Camocens, Gustave Regis, Mme. Ravary, and Triomphe de Pernet père; Messrs. F. Cant and Co., Colchester, second.

For twenty-four distinct, amateur (open), the competition was good and keen. Miss Beatrice Langton, Hendon, led with magnificent blooms, splendidly staged; Mr. E. Mawley, Berkhamsted, second; and Mrs. Adcock third.

For twelve Teas and Noisettes, Mr. E. Mawley was a good first, his blooms being fresh but not over large; Mr. H. C. Turner, Edware, second.

The class for twelve distinct was certainly one of the best contested in the show, no less than nine good boxes being staged. Lewis S. Paule, Esq., South Hill Avenue, Harrow, was a splendid first with grand flowers, being staged as well as any in the exhibition, and the flowers were of a very high standard, which were made up as follows: Marchioness of Downshire, Kaiserin Augusta Victoria, Her Majesty, Mrs. S. Crawford, Duke of Fife, Mrs. G. Laing (grand), The Bride, Marquise Litta, Tennyson, and S. M. Rodocanachi; Mr. G. R. Carter second, and Mr. Charles third.

There were several other smaller classes, most of which were well contested, Dr. Williams, of Harrow (the energetic secretary), staging well in these classes. The show was made up of miscellaneous plants, cut flowers, fruit, and vegetables for the best group. Mr. W. Smith, gardener to S. Gardner, Esq., was easily first with a pleasing arrangement; Mr. J. Fuller, gardener to J. N. Stuart, Esq., was second.

There was an extensive show of hardy cut flowers, which made quite a display in themselves. In the principal class Mr. H. E. Hargreaves was a good first, putting up splendid bunches.

Sweet Peas were excellent, and many of them pleasingly arranged. For twelve bunches Mr. G. Gardner was a good first, and for six bunches the competition was equally keen. Mr. A. K. Carlyn was well ahead with a very bright selection.

The ladies' tent attracted a good deal of attention, and it was certainly worthy of any society, the competition being most spirited. The first prize for a dinner table decoration was well won by Miss Hawkins with a very light and pleasing arrangement of Sweet Peas and Gypsophila, Miss A. Horley being second.

For an epergne Miss Langton was worthily first with a choice arrangement of Tea Roses; Mrs. L. S. Paule second, and Miss Ella Brown third.

There were several miscellaneous collections of plants shown by the trade, the most noteworthy being that of Messrs. W. Cutbush and Sons, Highgate, which was composed of splendid Carnations, Roses, and Sweet Peas charmingly arranged. Mr. J. Lyon, Park Nursery, Stanmore, staged a large and representative collection of hardy flowers, also Messrs. G. and A. Clark, Dover, and Messrs. Paul and Sons, Cheshunt.

### UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE usual monthly committee meeting of this society was held on Monday evening, July 7, at the Caledonian Hotel, Adelphi Terrace, W.C. Mr. C. H. Curtis presided. After the minutes of the last meeting were read and signed, four new members were elected. The death of a member was reported, and the amount standing to his credit in the ledger was granted to his nominee. A request for assistance from the convalescent fund was granted to a member who has been ill for a long time. Four members were reported on the sick fund.

### WINDSOR AND ETON ROSE AND HORTICULTURAL SOCIETY.

THE annual exhibition of this society was held in Eton on Wednesday, July 9, and although the display of flowers was excellent, the attendance was a poor one. There were many fine displays of hardy flowers from the leading nurserymen, these in themselves making quite a show. The late Queen's cup went once more to Ireland, Messrs. Alex. Dickson winning it the second time. The same cup has also been won twice by Messrs. B. R. Cant, of Colchester, and there will be a keen contest next year between these growers to secure final possession of this much-coveted trophy.

The amateurs' classes were well filled. Here again, Mr. Colin Romaine carried off the Windsor challenge cup for another year; if he wins it next year he will keep possession of it altogether. For the best display of cut Roses, the Dowager Duchess of Sutherland's challenge cup went to Mrs. Irving, of Pelling Place, Old Windsor. The National Rose Society's silver medal for the best Rose in the show was awarded to Messrs. Dickson for a Mildred Grant. It was the best Rose this year, and it was also the best Rose two years ago.

### OPEN CLASSES.

Forty-eight distinct Roses, single trusses: The Queen's cup, value ten guineas, presented by her late Majesty Queen Victoria—First, Messrs. A. Dickson and Sons, Royal Irish Nurseries, Newtownards, County Down; second, Messrs. B. R. Cant and Sons, Colchester; third, Mr. R. Harkness; fourth, Mr. D. Prior.

Eighteen Teas or Noisettes, distinct, single trusses: First, Mr. D. Prior; second, Messrs. B. R. Cant and Sons; third, Mr. Frank Cant.

Twelve distinct Roses, three trusses of each: First, Messrs. A. Dickson and Sons; second, Messrs. B. R. Cant and Sons; third, Mr. D. Prior.

Twelve single trusses of any Hybrid Perpetual or Hybrid Tea: First, Mr. Prior; second, Messrs. A. Dickson and Sons, and the silver medal of the National Rose Society for the best Rose in the show (Mildred Grant); third, Mr. Charles Turner, Royal Nurseries, Slough.

Twelve single trusses of any Tea or Noisette: First, Mr. D. Prior; second, Messrs. B. R. Cant and Sons; third, Messrs. A. Dickson and Sons.

Eighteen bunches of garden Roses, distinct variety no



less than three trusses to the bunch: First, Mr. Charles Turner.

#### AMATEURS.

Thirteen distinct single trusses: First, Mrs. Haywood, Wood Hatch, Reigate (gardener, Mr. C. J. Salter); second, Mr. Colin Romaine, The Priory, Old Windsor (gardener, Mr. J. Guttridge).

Six single trusses of one kind: First, Mr. Francis Wellesley, jun., Westfield, near Woking (gardener, Mr. J. Gilbert); second, Mr. T. B. Gabriel, Woking; third, Mr. R. Foley Hobbs, Thornelaw, Worcester.

Twelve Teas or Noisettes, single trusses, not less than eight varieties: First, Mr. A. Munt, Hedgerley, Slough; second, Mr. F. Wellesley; third, Mr. T. B. Gabriel.

#### LOCAL CLASSES.

Eighteen distinct single trusses: The Windsor cup—First, Mr. Colin Romaine; second, Mr. J. B. Fortescue, Dropmore, Maidenhead; third, Mrs. Irving.

Twelve distinct trusses: First, Mr. A. Munt; second, Mr. C. Norman Lacey, Westfield, Datchet; third, Mrs. R. van Hollings.

Messrs. Sutton and Sons, J. Carter and Co., Titt and Sons, and H. Eckford, presented special prizes. At the luncheon Mr. J. F. Hoddinott presided, and was supported by Sir Albert Rolitt, M.P., Mr. Colin Romaine, and others.

#### EAST ANGLIAN HORTICULTURAL CLUB

At the July meeting of this club a large number of members assembled to hear an interesting paper by Mr. T. B. Field, of Ashwelthorpe, upon the subject of "Old-fashioned Roses." Mr. Field was a friend of the late Mr. Ewbank, and with him fostered a love for types of Roses which seem to be fast disappearing. The essay was listened to with much pleasure, the essayist mentioning his treatment of these Roses, and also the difficulty in obtaining true plants of some species. Those touched upon included *Rosa sulphurea*, The Provence and its accidental sport the Moss, the Damask Austrian Briar, Musk Rose, Banksian, and Japanese *Rosa microphylla*, Scotch Rose, York and Lancaster striped, and others. Mr. Field, to further demonstrate his paper, had a large assortment of blooms and growths of many of the types mentioned; these were inspected closely by the members. A capital discussion followed, in which Mr. Geo. Daniels, Mr. F. Fitch, and Mr. E. Peake took part. A hearty vote of thanks was accorded Mr. Field for his interesting paper.

A noteworthy feature was a grand display of herbaceous flowers from the well-known collection of Westwick House, staged by Mr. Geo. Davison, among them being a couple of grand home hybridised Delphiniums of sterling merit. One named Westwick Blue is undoubtedly the best of its colour (a deep shade) yet introduced, and has a magnificent spike; the other, *Mauve Perfection*, as its name implies, is a grand acquisition in this shade. The floral committee without much hesitation granted certificates to both. *Campanula Mörheimi*, a large flowered semi-double white, has been crossed with a single blue and a fine semi-double blue equal in size to the white has resulted. Again, our common hedgerow *Harebell* found scope for Mr. Davison's skill, and he exhibited spikes of *Campanula rotundifolia* over 18 inches in length, carrying upwards of a dozen blooms. Of *Rudbeckias* he had several shades of pink and red, massive blooms, home hybridised. Mr. Davison is to be congratulated on his success, and hopes are expressed that more may be heard of his novelties. The exhibition tables were packed with flowers, fruits, and vegetables, Roses especially being a strong feature. The premier award for these was secured by Mr. R. Balls, gardener to Miss Penrice, Witton House. Mr. C. H. Hines had the best all-round collection of vegetables.

#### WOODBIDGE HORTICULTURAL SOCIETY.

The exhibition held annually by the above society is eagerly anticipated by East Anglians, as it is invariably excellent. This year's show in the Abbey grounds on the 10th inst. was well up to the average of its predecessors, both for quantity and quality of the exhibits. The schedule catered for all classes of gardeners, and included about 170 classes, in the vast majority of which there was competition. The show was well arranged by Mr. John Andrews and the committee, but it would much enhance the interest if the full addresses of the exhibitors were placed upon the class cards, instead of simply the names of the employer and the gardener as at present.

This is the time of the Rose, and the Queen of flowers unquestionably made the finest feature at Woodbridge, and the principal portion of this report will, therefore, be devoted thereto. The principal class was for thirty-six single trusses, distinct, a twenty-five guinea silver cup going with the premier award, which was well won by Messrs. E. R. Cant and Sons, Colchester. The best blooms were Mrs. Jas. Cocker, Fran Karl Druschki, Lady Mary Fitzwilliam, Ulster, Suzanne Marie Rodocanachi, Papa Lambert, Mrs. J. Laing, Mrs. W. J. Grant, White Maman Cochet, A. K. Williams, Duchesse de Morny, Comtesse de Ludre, Dupuz Jamin, Bridesmaid, Xavier Olibo, Le Havre, Charles Lefebvre, Caroline Testout, and Ulrich Brunner. The second position was assigned to Messrs. D. Prior and Sons, Colchester, whose best varieties were Bridesmaid, Kaiserin Augusta Victoria, Maman Cochet, Victor Hugo, Souvenir de S. A. Prince, Killarney, Sylph, and Mrs. E. Mawley. Messrs. F. Cant and Co., Braiswick Nursery, Colchester, were third. In the class for twenty-four distinct, Messrs. F. Cant and Co. were ahead with a handsome stand, in which the most conspicuous varieties were Helen Keller, The Bride, Suzanne Marie Rodocanachi, Mrs. J. Laing, A. K. Williams, Mildred Grant, Oscar Cordell, Mrs. W. J. Grant, and Fisher Holmes. In Messrs. D. Prior and Son's second prize stand we observed Marchioness of Dufferin, Charles Darwin, Mme. Cusin, Her Majesty, Maman Cochet, and Marie Baumann. Messrs.

B. R. Cant and Sons were first for twelve distinct with a fine stand comprising Frau Karl Druschki, Fisher Holmes, Bessie Brown, A. K. Williams, Alfred Colomb, Mrs. J. Laing, Marie Baumann, Suzanne Marie Rodocanachi, Gustave Piganeau, François Michelon, Helen Keller, and Dupuz Jamin. Messrs. D. Prior and Son were second, and Messrs. F. Cant and Co. third. For eighteen bunches of garden Roses, Messrs. F. Cant and Co. were awarded the premier prize. The best varieties were Mme. Abel Chateau, Rainhow, Laurette Messimy, and Mme. Jules Grolez.

The chief class in the open amateurs' section was for twenty-four distinct, and Mr. Osmund G. Orpen, West Bergholt, Colchester, was first. His best varieties were The Bride, Captain Hayward, Souvenir d'Elise Vardon, Comtesse de Nadaillac, Mrs. J. Laing, White Maman Cochet, Ulrich Brunner, Bessie Brown, Countess of Caledon, Helen Keller, Her Majesty, Mme. Cusin, and A. K. Williams. The Rev. A. Foster Melliar, Sproughton Rectory, Ipswich, was second, and had in good condition Catherine Mermet, Maman Cochet, Muriel Grahame, Bridesmaid, White Lady, Mrs. E. Mawley, Bessie Brown, and Mrs. A. G. Sharnan Crawford. The last-named grower won with twelve distinct, having Chas. Lefebvre, Maman Cochet, François Michelon, Mrs. J. Laing, Ulrich Brunner, Mrs. E. Mawley, Dr. Andry, Catherine Mermet, Bessie Brown, Dupuz Jamin, A. K. Williams, and Countess of Caledon. Mr. O. G. Orpen was second, his best varieties being Comtesse de Ludre, Maman Cochet, Bessie Brown, Mme. Cusin, White Maman Cochet, and Muriel Grahame.

Mr. Osmund G. Orpen was an easy first for six distinct, with beautiful blooms of White Lady, Mrs. J. Laing, Caroline Testout, Maman Cochet, Bessie Brown, and Catherine Mermet. Mr. F. H. Cook was second, and had in his stand good blooms of Maman Cochet, Mrs. W. J. Grant, and Bessie Brown. In the class for six blooms of any Tea or Noisette, Mr. R. Steward was placed first with Mrs. W. J. Grant, and Mr. O. G. Orpen second with Mme. Cusin. For nine bunches of Garden Roses, Mr. O. G. Orpen was first, and Miss Zouell, Woodbridge, second. There were several Rose classes open only to the district, but they did not bring forth anything of striking merit.

Mrs. O. G. Orpen had a most beautiful table decoration of Roses, and was accorded the premier prize. Miss Adelaide F. Harwood, Colchester, also using Roses, was second. Both of these exhibits displayed excellent artistic taste, and there could not have been many points between them. Mr. E. Jacobi had the best collection of herbaceous flowers, and was closely followed by Mr. R. C. Notcutt, Woodbridge. The set of fifteen bunches of Sweet Peas from Mr. E. Johnson was splendid, the flowers being clean, fresh, and of splendid colour. Plants in pots were varied in quality, as well as in kind; but some good examples of culture were noticeable. Fruits and vegetables were numerous and fairly good in quality. The chief honours in the former section were with H. Berners, Esq., Wolverstone Park, Ipswich, whose gardener, Mr. Messenger, staged well.

Nurserymen contributed handsomely to the show, and their exhibits were greatly admired. Mr. R. C. Notcutt, Woodbridge, arranged a miscellaneous group of greenhouse plants, and had also some splendid plants of *Arctotis grandis*, as well as herbaceous flowers. Messrs. Thompson and Morgan, Ipswich, and Mr. A. W. Wade, Colchester, had many fine herbaceous plants, while Messrs. Daniels Bros., Limited, Norwich, staged good Carnations and Sweet Peas. Lord Rendlesham's gardener, Mr. Rogers, exhibited a group of well-grown Malmison Carnations, and Messrs. Hobbies, Limited, Dereham, arranged splendid Sweet Peas and Roses. Messrs. Cutbush and Sons, Highgate, were represented by a beautiful collection of Carnations, in which such varieties as Mrs. Trelawney, Maggie Hodgson, Cecilia, La Villette, Lady Middleton, Uriah Pike, Nautilus, and Princess of Wales were shown.

#### FORMBY.

THIS society proved fortunate in postponing their exhibition for seven days, as the date was considered too early for Sweet Peas; the original date proved most unfavourable for outdoor festivities, whilst the 10th inst. was a most beautiful day. The district is well known as one producing fine Roses, and this year proved no exception to the rule, for they were present in quantity and of fair quality. Sweet Peas have made a home in the district, if we are to accept a heavy entry as proof, no less than twenty-four entries being sent in for the silver challenge cup presented by Mr. Henry Middlehurst of Liverpool.

#### CUT ROSES.

For twelve distinct varieties, Mr. B. Kennedy, the successful grower, won with a box fully up to average merit, the best being Mrs. W. J. Grant, Captain Christy, Victor Hugo, &c.; the Rev. J. B. Richardson was second; Mr. E. Storey third. For six distinct varieties, Miss M. A. Rimmer scored with a good box. For twelve Teas, hybrid Teas, or Noisettes, Mr. Kennedy again took the lead, and for the six varieties, Mr. Luther Watts was first. For the best bloom in the larger class, Mr. Carlyle won the National Society's silver medal with a small but beautifully-coloured Mrs. E. G. Sharnan Crawford, and in the smaller classes Mr. E. Sergenson was awarded the bronze medal for the best bloom. In the

#### SWEET PEA

section the competition was keen. Mr. W. Dodd, jun., last year's winner, proved the victor, and therefore becomes the possessor of the first silver challenge cup. The best of the flowers were Salopian, Hon. Mrs. Kenyon, Blanche Burpee, Duke of Westminster, Black Knight, &c. The ladies, as usual, were well to the fore in their various classes, but Miss M. A. Rimmer showed in fine form, securing the chief honour in each of the five classes, her basket of Roses being exceptionally noteworthy.

Mr. Luther Watts won with very fine plants of single Begonias; Mr. J. Formby had excellent double and single Geraniums; Mrs. Rathbone good Petunias; Mr. Storey the

best Maidenhair Fern; whilst Mr. F. A. Rockliffe led for exotic and hardy Ferns, stove and greenhouse plants, &c.

For fruit, which was of good quality, the leading prize takers were Rev. W. J. Humberstone, Messrs. J. Ambrose, J. Bruce, J. Howard, W. Mathias, W. Mackerall, and J. Aindow; for vegetables, Mrs. Rathbone, Messrs. J. Bruce and B. Sykes.

As usual the non-competitive collections added greatly to the interest of the show, and awards of merit were given to Mrs. Formby for baskets of cut flowers. Messrs. A. Dickson and Sons, Belfast, for highly cultivated Sweet Peas and cut Roses, the dark varieties being of splendid colour. Rose Queen Alexandra was also well shown.

Mr. H. Middlehurst had a fine collection of Sweet Peas, with a suitable background and Smilax trailing between the vases.

Mr. H. Eckford was strong in his favourite Sweet Peas, including Dorothy Eckford, a pure new white of great promise.

Mr. B. Kennedy, for a vase of La France Roses of good form, set up to show that form of staging.

The duties were ably carried out by Mr. T. Pugh, secretary; Mr. E. H. Bushell, treasurer; and an energetic committee.

#### MANCHESTER ROSE SHOW.

ON Saturday, the 19th inst., the northern exhibition of the National Rose Society was held in the Botanic Gardens, Old Trafford, Manchester, and proved to be possibly the best Rose show held this year. Mr. P. Weathers, the curator of the gardens, had made admirable arrangements, and everything passed off successfully. The Lord Mayor of Manchester visited the exhibition, and presided at the luncheon. There were many well-known rosarians present from the south, both professional and amateur. Most of the classes were well contested, and the prizes went to really good flowers.

#### NURSEYMEN.

Messrs. R. Harkness and Co., Hitchin, won the first prize, and Jubilee trophy, and gold medal for the best exhibit of thirty-six blooms, distinct, with, needless to say, a remarkably fine display. The flowers were of good quality throughout, and one of the boxes had probably the best eighteen blooms that have been shown this season. Comtesse de Nadaillac, Mrs. J. Laing, Mildred Grant, Muriel Grahame, and Bessie Brown were some of the best. Messrs. B. R. Cant and Sons, Colchester, were a very close second with blooms of excellent form, substance, and colour. The flowers of Ben Cant, Horace Vernet, Fisher Holmes, Ulrich Brunner, and Papa Lambert were, perhaps, the best. The third prize fell to Messrs. Alex. Dickson and Sons, Limited, Newtownards, and there were here also some splendid flowers. There were several other entries.

For sixty blooms, distinct, Messrs. B. R. Cant and Sons, Colchester, won the first prize with a very good collection of moderately large flowers. Some of the most notable were Mrs. John Laing, Ben Cant, Clio, Mrs. Cocker, Fisher Holmes, and Mme. Eugene Verdier. Messrs. Alex. Dickson and Sons, Limited, Newtownards, were a good second, some of their best blooms being Mrs. John Laing, Mrs. W. J. Grant, Mildred Grant, Captain Hayward, and Mrs. Edward Mawley. Messrs. Harkness and Co., Hitchin, were third with a very good exhibit also.

Messrs. R. Harkness and Co., Hitchin, won the first prize for twenty-four distinct varieties, three blooms of each, with a splendid lot. Mrs. John Laing, Ulrich Brunner, Mildred Grant, and Killarney being of the best. Messrs. Alex. Dickson and Sons, Limited, Newtownards, were a very good second with choice flowers. Comtesse de Nadaillac, Mildred Grant, and Maman Cochet were splendid. Messrs. B. R. Cant and Sons, Colchester, were third, and there were several more exhibitors.

For thirty-six blooms, distinct, Mr. Hugh Dickson, Belfast, was first with an exhibit that contained some splendid blooms—Captain Hayward, Comtesse de Ludre, Oskar Corail, Mrs. John Laing, and Rev. Allan Cheales were excellent examples. Messrs. James Townsend and Sons, Worcester, were second with a somewhat uneven stand, in which were very good flowers of Mrs. J. Laing, Ulrich Brunner, and Mrs. E. Mawley.

Mr. Hugh Dickson, Belfast, won the first prize for sixteen distinct varieties, three blooms of each. The flowers were of fine form and colour. Mrs. John Laing, Captain Hayward, Comtesse de Ludre, and Maquise Litta were particularly good. Mr. John Mattock, Oxford, was second with smaller blooms, Marie Van Houtte, Ernest Metz, and Comtesse de Nadaillac being of the best. Mr. W. H. Frettingham, Beeston, Notts, was third.

#### TEA AND NOISSETTES.

Messrs. Alex. Dickson and Sons, Newtownards, won the first prize for eighteen blooms, distinct, with fine flowers of Maman Cochet, Melea, Bridesmaid, Mme. Cusin, and others; Mr. George Prince, Oxford, was second, his exhibit including splendid Maman Cochet, White Maman Cochet, and Bridesmaid; Messrs. D. Prior and Sons, Colchester, were third.

For twelve blooms, distinct, Mr. John Mattock, Oxford, was first with choice well formed flowers; Messrs. Townsend and Sons were second, and Messrs. J. Burrell and Co., Cambridge, third.

#### OPEN.

Messrs. Alex. Dickson and Sons, Newtownards, won the first prize for twelve blooms of new Roses, distinct. The following were the varieties shown: Florence Pemberton, Lady Moyra Beaclere, Mildred Grant, Munster, Ard's Pillar, Bessie Brown, Mamic, Alice Lindell, Lady Clannmorris, Irish Maiden, Mrs. David McKee, and Exquisite; Messrs. B. R. Cant and Sons were second; and Messrs. Frank Cant and Co. third.

For twelve blooms of any white or yellow Rose, Messrs. Frank Cant and Co., Colchester, were first with very good blooms of Bessie Brown; Mr. George Prince, Longworth, Berks, was second with White Maman Cochet; and Messrs.



D. Prior and Sons, Colchester, third, with the same variety. There were nine entries in this class.

For twelve blooms of any light pink or rose-coloured Rose, Messrs. Alex. Dickson and Sons, Limited, were first with a grand lot of Mildred Grant, all splendid flowers; Messrs. Frank Cant and Co. were second with very good blooms of the same variety; and Mr. George Prince was third with Maman Cochet.

Mr. Hugh Dickson, Belfast, was first for twelve blooms of any light or dark crimson Rose with grand blooms of Captain Hayward; Messrs. Prior and Son, Colchester, were second with Horace Vernet; and H. V. Machin, Esq., third with Ulrich Brunner.

#### EXHIBITION ROSES IN VASES.

Mr. George Prince, Longworth, Berks, was first for twelve distinct varieties with a very good display, Marie Van Houtte, Comtesse de Nadaillac, and Maman Cochet being perhaps the best; Mr. John Mattock, Oxford, was second; and Messrs. R. Harkness and Co. third.

Messrs. D. Prior and Son, Colchester, won first prize for twelve distinct varieties of Teas or Noisettes (trebles) with some excellent blooms, especially of Mrs. Edward Mawley, White Maman Cochet, Maman Cochet, &c.; Mr. George Prince was second, and Messrs. Alex. Dickson and Sons third.

#### GARDEN ROSES.

Mr. John Mattock, Oxford, won the first prize for an exhibit of eighteen distinct varieties with a beautiful display of such as Hebe's Lip, Papillon, Ma Capucine, Irené Watts, Meta, &c.; Messrs. Frank Cant and Co. were a good second, and Mr. George Prince and Messrs. Paul and Son, Cheshunt, an equal third.

#### AMATEURS.

For twenty-four blooms, distinct, E. B. Lindsell, Esq., Hitchin, was first with splendid flowers, many of them almost perfect, Her Majesty, Mrs. J. Laing, Maréchal Niel, and Comtesse de Nadaillac were some of the best; H. V. Machin, Esq., Worktop, was second, but considerably behind the first prize exhibit; and the Rev. J. H. Pemberton, Haverling-atte-Bower, was third.

E. B. Lindsell, Esq., was first for thirty-six blooms, distinct, with an exhibit that included some very good flowers; Rev. J. H. Pemberton was a good second; and Richard Park, Esq., Bedale, third. All these displays were excellent. Rev. J. H. Pemberton was first for eight distinct varieties (three blooms of each); H. V. Machin, Esq., second; and E. B. Lindsell, Esq., third. The Rev. J. H. Pemberton won also for nine blossoms of any Rose, except Tea or Noisette with good flowers of Bessie Brown; H. V. Machin, Esq., was second with Her Majesty; and W. Boyes, Esq., Derby, third.

#### OPEN ONLY TO GROWERS OF LESS THAN 2,000 PLANTS.

R. Foley Hobbs, Esq., won for eighteen blooms, distinct, with splendid flowers; C. Burgess, Esq., Knutsford, was second; and Dr. J. C. Hall, Monaghan, Ireland, third.

R. Foley Hobbs, Esq., was first for six distinct varieties (trebles), Killarney being splendidly shown; C. Burgess, Esq., Knutsford, was second. R. Foley Hobbs, Esq., also won for six blooms of any Rose except Tea or Noisette; C. Burgess, Esq., was second; and Dr. J. C. Hall third.

#### OPEN TO GROWERS OF LESS THAN 1,000 PLANTS.

The Rev. Richard Langtree, Grange-over-Sands, was first for twelve blooms, distinct, with very good flowers; R. L. Garnett, Esq., Lancaster, was second; and M. Whittle, Esq., third.

#### OPEN ONLY TO GROWERS OF LESS THAN 500 PLANTS.

Henry Adamson, Esq., Bedale, was first for six blooms, distinct, W. Upton, Esq., Leicester, second; and R. Boswell, Esq., Hitchin, third.

#### EXTRA CLASSES.

For four distinct varieties (trebles) Henry Adamson, Esq., was well first; R. L. Garnett, Esq., second; and Rev. Richard Langtree third. E. Curtis, Esq., Colchester, won for six blooms of any Rose except Tea or Noisette with excellent Mrs. J. Laing; Henry Adamson, Esq., was second; and G. W. Cook, Esq., Muswell Hill, a close third.

#### TEA AND NOISETTES.

Richard Park, Esq., Bedale, was first for twelve blooms, distinct, with small though well formed flowers of which Maman Cochet and Caroline Kuster were the best; E. B. Lindsell, Esq., was second with good blooms that were bruised, and H. V. Machin, Esq., was third.

For nine blooms of any one variety, Rev. F. R. Burnside, Great Stanbridge Rectory, Essex, was first with splendid flowers of White Maman Cochet; E. B. Lindsell, Esq., was second with Maman Cochet finely coloured.

In the class for nine blooms, distinct, open only to growers of less than 500 plants, R. Foley Hobbs, Esq., Worcester, won with excellent blooms, especially of Elise Vardon, White Maman Cochet, and Comtesse de Nadaillac; M. Whittle, Esq., Leicester, was second.

For six blooms, distinct, open only to growers of less than 200 plants, George Moules, Esq., Hitchin, and W. Upton, Esq., Leicester, were equal firsts; F. A. George, Esq., Worcester, was third.

#### EXTRA CLASSES.

Rev. F. R. Burnside won for six distinct varieties, three blooms of each, with a very regular lot of well formed blooms, Mme. Cusin and Maman Cochet being the best; R. Foley Hobbs, Esq., was second, and Richard Park, Esq., third.

For six blooms of any one variety, G. W. Cook, Esq., Muswell Hill, won the first prize with small White Maman Cochet; R. Foley Hobbs, Esq., second, with Maréchal Niel, and M. Whittle, Esq., Leicester, third.

The Rev. J. H. Pemberton won, for twelve distinct varieties of garden Roses, with an excellent lot, Gustave Regis, Crimson Rambler, Rosa Mundi, R. macrantha, &c. were included; H. V. Machin, Esq., was second, Edward Mawley, Esq., was first for six distinct varieties of garden

Roses; G. W. Cook, Esq., second; and the Rev. F. J. Telford third.

#### GOLD MEDAL ROSE.

Messrs. Alex. Dickson and Sons, Limited, Newtownards, Ireland, gained the gold medal offered for any new seedling Rose or distinct sport with the variety Florence Pemberton, a hybrid Tea.

#### SILVER MEDAL ROSES—NURSERYMEN.

Best Hybrid Tea.—Messrs. Frank Cant and Co., Colchester for Mildred Grant.

Best Tea or Noisette.—Messrs. D. Prior and Son, Colchester, for White Maman Cochet.

Other than Tea or Noisette.—Messrs. Towson and Son, Worcester, for Mrs. John Laing.

#### AMATEURS.

Best Hybrid Tea.—Mildred Grant, shown by R. Foley Hobbs, Esq., Worcester.

Best Tea or Noisette.—White Maman Cochet, shown by the Rev. F. R. Burnside.

Best Rose other than Hybrid Tea, Tea, or Noisette.—Prince Arthur, shown by the Rev. R. Langtree, Grange-over-Sands.

#### NON-COMPETITIVE EXHIBITS.

Messrs. Dickson and Robinson, Manchester, had a very pretty display of hardy flowers, including choice Delphiniums, English and Japanese Irises, Lilliums, Sweet Peas in variety, Gladioli, and some finely flowered plants of Verbena Miss Ellen Willmott.

Messrs. Jones and Sons, Shrewsbury, displayed a beautiful lot of Sweet Peas, arranged in vases. The flowers were of splendid quality, and included many choice varieties.

Mr. W. L. Pattison, Cherry Orchard, Shrewsbury, exhibited a pretty lot of Violas, arranged in sprays on a black background. Some of the flowers were remarkably good and distinct in colouring.

Messrs. Dicksons, Chester, arranged an interesting and choice display of hardy flowers. Towards the back of the group were splendid Liliun auratum, Delphiniums, Spiraeas, Eryngiums, Gladioli, Alstromerias, Phlox Miss Roberts (pure white), Agrostemma Walkeri (rich crimson-lake flowers), &c., while bunches of Roses were arranged in boxes along the front; sprays of foliage, interspersed with the flowers, much improved the appearance of this portion of Messrs. Dicksons' exhibit.

Messrs. M. Hodgkins and Co., West Didsbury, Manchester, had a most interesting exhibit of floral anatomy, skeleton flowers and leaves, showing all the delicate tracing of the minutest veins.

Mr. John Robson, Dowdon Nurseries, Altrincham, exhibited a group of good Malmaison and other Carnations.

A specimen plant of Liliun auratum (gardener, Mr. W. G. Sharpe) was shown by J. L. Williamson, Esq., The Graage, Stretford.

#### SOUTHELD ROSE SHOW.

THIS, the first venture of the Southend District Rose Society, was held on Saturday, July 12, in the grounds of the Shrubbery, the Cliff Gardens, so well known to the frequenters of this popular seaside resort. The weather was all that could be desired, the arrangements generally excellent, the only thing lacking to crown the day with the success that those concerned with the management deserved was the attendance of the outside public. This, we are afraid, was not what one might reasonably have expected. As far as the Roses were concerned, it was the general opinion of the exhibitors and those best qualified to judge that for its size the show contained the best lot of blooms that had so far been exhibited this season.

The winning stand of Messrs. B. R. Cant and Sons (forty-eight varieties), Mr. Lindsell's first prize (twenty-four varieties), and Mr. Orpen's box of twelve Teas were all deserving of special mention, the last-mentioned box being the finest exhibit of twelve Teas seen for the year, and were remarkable for size, form, and general finish and colour. The Rev. Pemberton staged an excellent exhibit of garden Roses that was well worthy of notice, being arranged with the lightness and with a view to show the habit of growth of the Rose that is so generally lost sight of by the trade exhibitors of a similar character.

The competition throughout was very keen, and a glance at the list of the prize winners will show that the best known exhibitors, both professional and amateur, paid the hon. secretary, the Rev. F. R. Burnside, of Great Stanbridge Rectory, the highest compliment in their power by exhibiting, and exhibiting of their very best.

#### NURSERYMEN.

Forty-eight blooms, distinct varieties, five competitors.—First, Messrs. B. R. Cant and Sons, Colchester, with a grand box, well staged, and remarkable for colour and general finish. The most notable blooms were A. K. Williams, a fine bloom of Ben Cant, the new Frau Karl Druschki (that promises to be the best white exhibition Rose), Horace Vernet, Xavier Olibo (a grand flower), Lord Bacon, Papa Lambert, Mrs. Edward Mawley; second, Messrs. R. Harkness and Co., of Hitchin, close up, only a few points behind the winners; third, Messrs. Prior and Co., of Colchester, with blooms not quite so well finished. The other two boxes would have been quite good enough in ordinary competition to have won. Altogether a fine class.

For eighteen varieties, three blooms of each.—These were an even lot throughout. Messrs. Harkness, of Hitchin, were first with good trebles of Mrs. John Laing, Rev. Alan Charles, Ulster, Her Majesty, Bessie Brown, and Mrs. Edward Mawley; Messrs. Prior and Son, of Colchester, second; and Messrs. B. R. Cant and Sons third with a treble of Frau Karl Druschki; three other exhibitors.

In the class for eighteen varieties, Teas or Noisettes, Messrs. Prior, of Colchester, just won with good blooms of Maréchal Niel, The Bride, Maman Cochet, and Mrs. Edward Mawley; Messrs. Frank Cant and Co., of Colchester, being a remarkably good second with a grand bloom of Golden Gate and fine flowers of Souv. d'Elise, Niphetos, Mrs.

Edward Mawley, The Bride, &c.; Messrs. B. R. Cant third, with smaller blooms of good quality.

Class 8.—Twelve varieties, three of each, Teas or Noisettes. The placings in this class were similar to class 7, Messrs. Prior's best blooms being Golden Gate, White Maman Cochet, Comtesse de Nadaillac, and Maréchal Niel. Messrs. Frank Cant had a very fine bloom of Muriel Grahame.

In the garden or decorative Rose class for twelve bunches Messrs. Paul and Sons, Cheshunt, were first with big bunches of Mme. Jules Grolez, Crimson Rambler, Camens, Mme. Ravary, Marquise de Salisbury, Mme. Pernet Ducher, Liberty, Killarney, Lady Battersea, Mrs. Helen Richardson, Alister Stella Gray, and others. Messrs. Frank Cant second, with rather looser bunches, not so many blooms, but making a more effective display, their stand had very fine bunches of Bardou Job, Souvenir de Catherine Guillot, and Papa Gontier. Messrs. B. R. Cant and Sons third, almost entirely composed of the summer-flowering Roses and singles; a good stand.

#### AMATEURS.

It is a long time since a better lot of flowers, especially in the larger classes, have been staged at a show of this kind in the amateur classes, the Teas being especially good, and a long way ahead of the trade exhibits. A well-known grower and exhibitor described Mr. Orpen's box of Teas as the best box of twelve he had ever seen; they were certainly very fine. For twenty-four varieties, distinct; a fine class of exhibitors, Mr. Lindsell being first with blooms of grand size, remarkably even all through, staged as only Mr. Lindsell can stage them. Where all were so good it is not easy to pick out the best, but Duke of Wellington in this stand obtained the silver medal for the best H.P. in the show, a grand flower of unusual size for this variety. Other good flowers were Maman Cochet, Mme. de Watteville, Horace Vernet, Fisher Holmes, Comte de Raimband, Mrs. E. Mawley, and The Bride; Mr. O. G. Orpen was second, and Mr. R. Foley Hobbs third with younger flowers.

In the treble class, twelve varieties, three of each, Mr. Lindsell was again first with good trebles; Mr. R. Foley Hobbs was second, and the Rev. J. H. Pemberton third. There were three other exhibitors.

Class 5, twelve varieties, single blooms.—First, Mr. O. G. Orpen, with an excellent box, Her Majesty, Killarney, Bessie Brown, Maman Cochet, Horace Vernet, White Maman Cochet, Mrs. John Laing, Mrs. E. Mawley, Mrs. Cocker, and Xavier Olibo; second, Mr. E. M. Bethune, fine blooms of even character, but smaller; third, Miss Langton; four other competitors, a very strong class.

Class 6, six varieties, single blooms.—First, Mr. G. H. Baxter; second, Mr. H. E. Molyneux, close up (the judge had considerable difficulty in separating first and second), with good blooms of Horace Vernet, Helen Keller, Ulrich Brunner, Bessie Brown, White Maman Cochet, and Her Majesty.

For twelve varieties of Teas and Noisettes.—First, Mr. Orpen; this box has already been referred to. His flowers were Maman Cochet, Muriel Grahame, Mrs. E. Mawley, White Maman Cochet, Souv. de S. A. Prince, Comtesse de Nadaillac (very fine), Medea, Catherine Mermet, E. Metz, Innocente Pirella, Mme. Cusin, and The Bride; there was not an inferior bloom in the box; second, Mr. E. M. Bethune, a beautiful stand of flowers, not quite so heavy or as well finished as the first prize; third, Mr. E. B. Lindsell, an even stand, very close up, losing by two points only, quite good enough to win in ordinary competition. The Rev. F. R. Burnside also had a box with many good flowers, especially Comtesse de Nadaillac and Maman Cochet; there were two other competitors. For six Teas, Mr. R. Foley Hobbs was first with an even box of neat blooms; second, Mr. G. H. Baxter. For six Teas (trebles), Mr. E. M. Bethune was first with fine flowers well finished of Maman Cochet, White Maman Cochet, Mrs. E. Mawley, Bridesmaid, Catherine Mermet, and Mme. Cusin; second, Mr. O. G. Orpen, with flowers of better colour than the winner's, but lacking weight; third, Rev. F. R. Burnside, neat box, close up.

#### OPEN CLASSES.

Twelve blooms of any dark Rose, first, Messrs. B. R. Cant and Sons with A. K. Williams; second, Messrs. Harkness, with Fisher Holmes; third, Messrs. Frank Cant, with Fisher Holmes. There were several other competitors. Twelve blooms of any light Rose, first, Mr. O. G. Orpen, with a grand box of White Maman Cochet; this box contained the medal bloom awarded for the best Tea in the show. We understand that the identical Rose was also awarded the medal at Brentwood show on the Thursday previous. Second, Messrs. Frank Cant, with a very fine box of Bessie Brown; third, Mr. J. T. Thompson, of The Laurels, Bowes Green, N., an excellent box of Mrs. John Laing that must have run the second very close. Mr. Thompson, who grows less than 500 Roses, is to be congratulated on heating several exhibits by the trade of the same Rose. Altogether a very strong class.

For twelve blooms of any yellow Roses, one exhibit only, Messrs. D. Prior and Son, a fine box of Maréchal Niel, and for twelve blooms of any Tea or Noisette: First, Mr. Lindsell, with a beautiful box of very highly coloured Mme. Cusin; second, Mr. E. M. Bethune; third, Mr. O. G. Orpen, both White Maman Cochet.

For twelve bunches of garden Roses, open to amateurs: First, Rev. J. H. Pemberton, with a well-arranged stand, containing fine bunches of the garland and other good Roses; second, Mr. O. G. Orpen, with good bunches of Rugosa rubra, Claire Jacquier, and Olga de Wurtemberg; third, Miss Langton.

#### LOCAL CLASSES.

Judging from the exhibits there is a grand field for mission work amongst the inhabitants of Southend. There were only three exhibits in three classes, and they were very poor in character. No doubt the society will alter this by next season. They are, at any rate, to be heartily congratulated on their first show.



## NATIONAL CARNATION AND PICOTEE SOCIETY.

The annual exhibition of this society was held on Tuesday last at the Drill Hall, Westminster, under the auspices of the Royal Horticultural Society. Nearly all the classes were keenly contested, especially those for single blooms, and as a result many fine flowers were exhibited. The Carnations almost filled the Drill Hall, leaving but little room for other displays.

For twenty-four bazarres and flakes, Mr. Charles Turner, Slough, won the first prize with a charming lot of flowers, Duke of York, John Keet, George Herbert, Harrison Weir, and Charles Henwood being some of the best; Mr. Rowan, Manor Street, Clapham, was second with considerably smaller flowers; and Martin R. Smith, Esq., Warren House, Hayes, third.

For twenty-four selfs, Martin R. Smith, Esq., won with splendid blooms, Cecilia, Ensign, Daffodil, Bomba, and Anne Boleyn being very fine; Mr. Charles Turner, Slough, was second with an exhibit that contained several good blooms; and Messrs. Blackmore and Langdon, Tiverton-on-Avon, Bath, were third.

The first prize for twenty-four fancy Carnations fell to Martin R. Smith, Esq., for some lovely blooms. Molly Maguire, Pagan, Argosy, Caird, and Siegfried were very beautiful. Mr. Charles Turner was a very good second, Duke of Alva, Falca, Charles Martel, and Voltaire being finely shown; Messrs. Blackmore and Langdon were third.

Martin R. Smith, Esq., won for twenty-four Picotees, white ground, with a choice exhibit. Particularly good were Miriam, Ganymede, Mrs. Wm. Blarion, and Mrs. Payne. Mr. Charles Turner, Royal Nurseries, Slough, was second with good flowers; and Messrs. W. Tiplin and Sons, Newton Abbot, third.

The first prize for twenty-four Picotees, yellow ground, was awarded to Martin R. Smith, Esq., for excellent flowers. Gronow, Lady St. Oswald, Dalkeith, Koh-i-Noor, and Miss Aura Mackee were of the best. Mr. Charles Turner was second; and Messrs. W. Tiplin and Sons, Newton Abbot, third.

Martin R. Smith, Esq., was first for six Carnations, selfs, one variety, with splendid flowers of Cecilia; Messrs. Blackmore and Langdon were second with Master F. Wall and Messrs. Tiplin and Sons third.

Messrs. Blackmore and Langdon, Tiverton Nursery, Bath, were first for six blooms, of any yellow or buff ground fancy Carnations, with very good flowers of Willie Tylee; Martin R. Smith, Esq., was second, showing Mountjoy; and Messrs. Tiplin were third.

Messrs. Blackmore and Langdon were again first for six blooms of fancy Carnations other than yellow or buff ground. They showed Millie in good form. Martin R. Smith, Esq., was second with Waterwitch, and Messrs. W. Tiplin third.

Martin R. Smith, Esq., was first for six blooms of any yellow ground Picotee, showing Gronow well; Messrs. W. Tiplin won the second prize.

The first prize for twelve distinct Carnations, three blooms of each, was won by Martin R. Smith, Esq. He showed Bridgroom, Cecilia, Hildegarde, Agnes Sorel, Molly Maguire, &c., very finely. Messrs. Blackmore and Langdon were second with good blooms of Snowball, Neatness, Novelty, Alice Brown, &c. Messrs. Tiplin were third.

## SINGLE SPECIMENS—CARNATIONS.

Scarlet bazarres: First, M. F. Wellesley, Esq.; second, Mr. R. C. Cartwright; third, Mr. F. Wellesley.

Crimson bazarres: First and second, Mr. F. Wellesley; third, Mr. W. Spencer, jun.

Pink bazarres: First and second, Mr. F. Wellesley, showing Mrs. Skirving; third, Mr. W. Spencer, jun.

Purple flakes: First and second, Mr. F. Wellesley, with the varieties G. Melville and Gordon Lewis; third, Mr. E. Charrington.

Scarlet flakes: First, Mr. Nash, with Guardsman; second, Mr. Robert Sydenham, with John Wormald; third, Misses Thompson.

Rose flake: First, Mr. F. Wellesley, with Merton; second, Mr. J. Keen, Southampton.

## SELF.

White or blush: First, Mr. William Spencer, jun., with Much the Miller; second, Mr. Nash, with Eric Hambro; third, Mr. E. Charrington.

Rose or pink: First, Mr. Charrington, with Mrs. Amy Sebright; second, Mr. F. Wellesley, showing Bomba; third, Mr. Charrington.

Scarlet or crimson: First, Mr. Martin Smith, showing H. J. Cutbush; second, Messrs. Thomsoo, with The Sirdar; third, Mr. Wootton.

Marone or purple: First and second, Mr. F. Wellesley, showing Sir Bevis; third, Mr. William Spencer, jun.

Yellow: First, Mr. F. Wellesley, with Germania; second, Mr. E. Andrews, with the same variety; third, Mr. Spencer, jun.

Buff: First, Mr. Spencer, jun., with Benbow; second and third, Mr. R. C. Cartwright, also with Benbow.

Yellow ground fancies: First, Mr. William Spencer, jun., showing Queen Bess; second, Mr. James Fairlie, with Argosy; third, Mr. Nash.

Other fancies: First and second, Mr. Spencer, with the variety Artemis; third, Mr. R. C. Cartwright.

Messrs. F. Wellesley, Robert Sydenham, W. Spencer, jun., Martin Smith, Nash, R. C. Cartwright, W. Pemberton and Son, and J. J. Keen were the chief prize winners in the classes for Picotees of all descriptions.

The Second and Third Divisions are unavoidably held over until next week, through pressure on our space.

## PLANTS.

The first prize for a single specimen was won by Martin R. Smith, Esq., who showed Childe Harold.

Martin R. Smith, Esq., won for twelve specimens of Carnations or Picotees in pots; Mr. Charles Turner, Royal Nurseries, Slough, being second.

The first prize for a group of Carnations (50 square feet)

was won by Martin R. Smith, Esq., Hayes, Kent (gardener, Mr. C. Blick), with a very fine display. The plants were well flowered, the flowers of good substance and pleasing variety of colour; many choice sorts were also represented. Mr. Charles Turner, Slough, won the second prize.

A second prize for a smaller group of Carnations was awarded to A. F. Fitter, Esq., 15, Streatham Hill, S.W. (gardener, Mr. A. W. Hurrel).

Mr. James Douglas, Edenside, Great Bookham, Surrey, showed a collection of splendid Carnation blooms arranged in vases. There were some beautiful flowers amongst them, including Pagan, Nellie Ryan, Benbow, Rose Celestial Clove, Boreas, Bendigo, Evangeline, Lady Hermoine, &c. Mr. Douglas also exhibited very fine single blooms of some of the best varieties.

## PREMIER BLOOMS.

Bizarre.—Master Fred, exhibited by F. Wellesley, Esq., Woking.

Flake.—Sportsman, from Messrs. Pemberton and Sons. Self.—Mrs. Guy Sebright, sent by E. Charrington, Esq.

Fancy.—Queen Bess, shown by W. Spencer, Esq.

Heavy-edged white ground Picotee.—Mrs. Foster, shown by Mr. Robert Sydenham.

Light-edged white ground Picotee.—Fortrose, shown by F. Wellesley, Esq.

Heavy-edged yellow ground Picotee.—Dalkeith, from Mr. C. Blick, gardener to Martin R. Smith, Esq.

Light-edged yellow ground Picotee.—Mrs. Walter Heriot, from Mr. C. Blick.

## ROYAL HORTICULTURAL SOCIETY.

A SECOND meeting of the fruit and vegetable committee, chiefly to examine the later Peas of the great trial of eighty-five varieties presented this year, was held at Chiswick on the 17th inst. Present: W. Marshall, Esq. (in the chair), Messrs. G. Wythes, O. Thomas, J. Willard, G. Woodward, G. Kelf, W. Bates, S. Mortimer, and A. Dean.

Prior to examining the Peas, Mr. Woodward placed before the committee a large dish and fruiting branches of the Black Currant Boskop Giant, put into commerce by Messrs. George Bunyard and Co., and grown on ordinary bushes three years planted at Barham Court, Kent. The wood was vigorous, the bunches from 3 inches to 4 inches long; berries very large, black, sweeter than other varieties, and it is evidently a great cropper. It has not, so far, been attacked by the mite. A first-class certificate was unanimously awarded to it.

Of Peas, amongst the many varieties sent by Messrs. Sutton and Sons, Reading, the following received awards of merit: Lord Roberts, 30 inches; Selected Dr. Maclean, a great improvement in quality on the old variety of that name, 3 feet; Prolific, 3 feet, a great cropper; and Royal Jubilee, 4 feet, a superb late variety. These were all of high excellence. From Messrs. James Veitch and Sons, Chelsea, came Lord Rosebery, 5 feet, a great cropper; and Late Prolific, 5 feet, also a splendid variety. These also obtained awards of merit. A similar award was given to a very great cropping and fine variety, Champion Marrow, 3½ feet, from Messrs. Dickson and Sons, Chester; whilst to that superb late variety, The Gladstone, here a wonderful cropper, 3 feet, from Messrs. Alex. Dickson and Co., Belfast, a first-class certificate was awarded. The Pea trial elicited the warmest admiration from the committee, great credit being given to Mr. S. T. Wright and his very limited staff for such excellence. To Cabbage Lettuce Carter's Perpetual, from Messrs. James Carter and Co., Holborn, a very fine and peculiarly long standing variety, an award of merit was given.

So much care is exercised in the sowing and culture of the Peas at Chiswick, and the committee in examining them act with such entire impartiality, giving awards only to the best, that it is hoped another year more seedsmen and raisers will send their very best varieties for trial, as none really good should be left out.

As mentioned elsewhere the Drill Hall was on Tuesday last almost entirely given over to the exhibition of the National Carnation and Picotee Society, so the display of hardy flowers, Orchids, fruit, &c., was necessarily not extensive.

## ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, H. Little, de B. Crawshaw, Jeremiah Colman, J. Wilson Potter, H. A. Tracy, W. H. White, W. H. Young, F. J. Thorne, H. T. Pitt, N. F. Eilney, Frank A. Rehder, James Douglas, H. Ballantine, H. M. Pollett, and E. Hill.

But few Orchids were shown on this occasion, yet several were of considerable interest and merit.

Cypripedium antioquia, lawrencianum × niveum, came from Baron Schröder, The Dell, Egham (gardener, Mr. Ballantine).

Messrs. James Veitch and Sons, Limited, Chelsea, showed Cypripedium W. R. Lee, in which the dorsal sepal is heavily lined with black, the sepals lightly dotted brown, and the lip of a chocolate colour. Lelia Helen is a cross between L. digbyana and L. tenebrosa. Lelia-Cattleya Aphrodite alba is very fine, and L.-C. Norba is a result of crossing C. Mossie and L. xanthina. Cattleya atalanta is a good form with a fine purple lip.

H. F. Simond, Esq., Beckenham (gardener, Mr. G. E. Day), showed a splendid specimen of Grammangia Ellisii, an importation from Madagascar, with an arching raceme of some twenty-six flowers. The chief colour of the sepals is golden brown, with a bar of yellow near the apex. A cultural commendation was awarded.

A similar award was also made to Walter C. Walker, Esq., Percy Lodge, Winchmore Hill, for a finely flowered example of Dendrobium Falconeri.

A fine bold Cypripedium was sent by Mrs. Haywood, Woodhatch Lodge, Reigate, and named C. Harri-leeanum, having resulted from a cross between C. harrisianum and leeanum.

A Sobralia hybrid came from J. Foster Alcock, Esq., Northchurch; and Physisiphon Loddigesii from R. J. Measures, Esq., Camberwell.

## CERTIFICATED ORCHIDS.

A first-class certificate was awarded to: *Cattleya* × *wiganiana* (*waariniana* var.).—Shown by Sir F. Wigan, Bart., Clare Lawn, East Sheen (gardener, Mr. W. H. Young). This handsome and distinct plant carried a two-flowered raceme. The dorsal petal is a brownish salmon colour and about 4 inches long, the wavy sepals being of a most delicate tint of rose with salmon shading, lip rosy violet, lightly freckled gold.

## FRUIT AND VEGETABLE COMMITTEE.

Present: Messrs. George Bunyard (chairman), H. Balderston, Joseph Cheal, Henry Esling, S. Mortimer, Alex. Dean, Edwin Beckett, J. Jaques, G. A. Nix, F. L. Lane, H. Somers Rivers, Owen Thomas, and G. Reynolds.

The exhibits before this committee were by no means numerous. Black Currants of a good type, named Campsea Ashe, came from Mr. Andrews, The Gardens, Campsea Ashe.

Peach Libra is one of the late Mr. R. D. Blackmore's seedlings, of which two fine fruits were shown by Mr. Will Taylor, Hampton. They were taken from a tree planted in a cold house in December, 1901. The variety is certainly full of promise.

Pea Essex Herd is a full-podded kind of excellent quality, and was shown by Mr. G. Hobday, Romford Park.

Pea Glory of Devon, from Messrs. R. Veitch and Sons, Exeter, is a flat-podded kind that promises well.

Gooseberry Scorpion, with Red Currants Versailles, came from Mr. George Lee, Clevedon, and a handsome Tomato called Coronation was shown by Henry Parr, Esq., Trent Park, New Barnet.

Three dishes of Apple Early Victoria were shown by Messrs. Cross and Sons, Wisbech.

A tray of splendid Peaches of the variety Duke of York, from pot trees in cold house, were from Messrs. Thomas Rivers and Sons, Sawbridgeworth. Vote of thanks.

The largest exhibit was that of Cherries, of which Messrs. W. Ray and Co., Teynham, Kent, had some thirty dishes in many leading kinds. Some of the finest shown were Frogmore Bigarreau, one of the best white early sorts; Florence, Elton Heart, Amber Heart, very good in size, but too firm for use; Napoleon Bigarreau, excellent in every way; Governor Wood, Bedfordshire Prolific, Noble, very fine sample; Early Circassian, and Webb's Black Heart, &c. The exhibit attracted a good deal of attention, and was awarded a silver gilt Knightian medal.

A vote of thanks was given to Dr. Bonavia, Richmond Road, Worthing, for a basket of the Strawberry Grape, a distinct flavoured variety not grown so often as it should be.

## NEW FRUITS.

A first-class certificate was awarded to *Strawberry Givons Late Prolific*.—A bright scarlet-fruited kind, the oblong fruits uniform in size and finely flavoured. The variety resulted from crossing Waterloo with Latest of All, and received an award of merit July 2, 1901. Being in such good condition on the 22nd inst., when plants, as well as fruits in boxes, were shown, and coming from a district of comparative earliness, augurs well for its lateness generally. It was shown by H. P. Sturgis, Esq., Givons Gardens, Leatherhead (gardener, Mr. W. Peters).

An award of merit was granted to *Strawberry The Khedive*, a dark-coloured fruit, which will undoubtedly prove valuable as a late variety. This was shown by Messrs. James Veitch and Sons, Limited, King's Road, Chelsea.

## CERTIFICATED PLANTS.

The following received an award of merit:

*Maranta insignis*.—The leaves of this Maranta are narrow and green. The spots or blotches upon them are a distinct feature. From Messrs. William Bull and Sons, Chelsea.

*Rose Field-Marshal*.—A monthly climbing Rose, possessing vigour and freedom, with very large and full, richly-coloured crimson flowers. It should prove a most useful addition to climbing Roses. Shown by Messrs. Paul and Son, Waltham Cross.

*Rose Ben Cant* (H.P.).—This magnificent novelty is already well known, and, in addition to what we have said before, we may say we believe it to be the finest crimson Hybrid Perpetual that has yet been raised. Size of bloom, enormous size and great texture of petal, with the finest form and fragrance, are features that may be seen at a glance. Shown by Messrs. B. R. Cant and Co., Colchester.

## FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), and Messrs. C. T. Drury, R. Dean, H. B. May, Geo. Nicholson, Jas. Walker, Geo. Reuther, W. Howe, C. R. Fielden, Chas. Dixon, C. J. Salter, Chas. E. Pearson, R. C. Notcutt, W. P. Thomson, E. H. Jenkins, Wm. J. James, Geo. Paul, Edward Mawley, John Jennings, Harry Turner, and H. J. Cutbush.

The Carnation group from Messrs. Wm. Cutbush and Sons, Highgate, contained many good Malmansons. Of these we noted Princess of Wales, one of the best in pink shades, and of which a large number of one year old plants were shown bearing from sixteen to nineteen flowers, Maggie Hodgson (crimson), Sir F. Freemantle, Baldwin (warm rose pink), Nautilus (deep blush), President McKinley (apricot, and quite a new shade), Herbert J. Cutbush (scarlet), Lady Nimi (salmon, with rose), and Brodrick (yellow ground) were among others that, with the renowned yellow self Cecilia, made up quite a feast of these flowers alone. Palms and other things were employed in the setting with good effect. Silver-gilt Banksian medal.

Mr. Amos Perry, Winchmore Hill, exhibited a group that in some degree recalled his fine group at Holland House recently. Some fine Campanulas were shown, notably C. lactiflora and its varieties pallida and corulea, which form a trio of the showiest bell-flowers for July. Among rare plants the Fire Pink (*Silene virginica*), with scarlet-crimson flowers is excellent, and the pretty *Spigelia marilandica* with tubular flowers was also noted. Fine heads of *Ostrowskia magnifica*, and of several fine *Phloxes*, together



with *Platycodon autumnale* and *P. grandiflorum* made a good show. Silver gilt Banksian medal.

Sweet Peas of which there were some fifty or sixty vases, in all the most approved kinds were shown by Messrs. Jones and Son, Shrewsbury. Some of the kinds, as *Othello*, very dark, and Countess of Radnor, pale blue, were very pleasing. Miss Willmott, one of the best of the rose-scarlet shades, is also a fine sort. Silver Flora medal.

From Christchurch, Mr. M. Prichard brought a really fine lot of things and in handsome bunches; among the best of his lot were *Leula macrocephala*, *Centaurea ruthenica*, with sulphur-yellow heads; *Liatris spicata*, *Cimicifuga americana*, white or creamy; fine masses of *Alstrœmeria*, *Helianthus rigidus*, *Clematis integrifolia*, *Gladiolus Lemnini* var., *Monarda didyma*, and several handsome *Phloxes*, as *Ball of Fire*, *Coquelicot*, &c. *Lilium dalmaticum* was good, and several *Iris Kœmpferi* were shown in this fine group. Silver-gilt Flora medal.

Messrs. J. Cheal and Sons, Crawley, set up a choice assortment of Sweet Peas in a large number of the best kinds, the flowers good and very fresh looking; around the back large vases filled with *Alstrœmeria anantiaca* were arranged.

Messrs. J. Veitch and Sons, Ltd., Chelsea, had a handsome group of the new aquatics enclosed by Bamboos, &c. The former included the best of the *Marliac Lilies*, e.g., *N. Mariacea* alba, very fine; *N. M. chromatella*, *N. M. carnea*, *N. Lysdeckeri* lilacea, *N. Jas. Brydon*, rose-coloured, very large; *N. Collossea*, *N. Seignouretti*, &c. Greater sunlight was needed to expand the flowers more fully, however. *Yucca recurva* and *Glyceria spectabilis* fol. var. were also included. Silver Banksian medal.

Near by Messrs. J. Peed and Sons, Norwood, set up a group of *Malmaison* and other *Carnations* in pots. The yellow *Cecilia* was well shown, as also were the varieties *Mrs. W. Smith*, soft pink, and *R. H. Measures*. There was a large number of the *Princess of Wales*, a popular kind and very showy.

Messrs. Barr and Sons contributed a showy group of mixed hardy flowers, *Delphiniums*, Sweet Peas, *Gaillardias*, together with early-flowering and *Lemoinei* *Gladiolus*, *Iris Kœmpferi* in variety, the red and pure white perennial Peas, several fine *Marguerites* of the perennial class, and various *Phloxes*. *Eriogonum speciosum*, *Galega officinalis* alba, *Aconitum pyrenaicum*, and some handsome spikes of *Lilium pardalinum* were exceedingly showy. *Coreopsis verticillata* is a welcome change from the common *C. grandiflora*, and very pretty are the numerous flowers. Border *Carnations* in variety were also shown. Silver Banksian medal.

Mr. A. Wade, Colchester, had three capital vases of *Lilies*, two of these filled with *L. excelsum* and the third with *L. Brownii*. The flowers were very good, and the last-named kind very bold and telling.

Messrs. Paul and Sons, Old Nurseries, Cheshunt, had a small exhibit of cut *Roses*, in which *Lady Battersea*, *Corallina*, *Bessie Brown*, and *Sonv. de William Robinson* were notable, the last being very striking in its colour combination.

Another lot of *Roses* from Messrs. B. Cant and Sons, Colchester, included some very choice things. For example, *Beryl*, golden orange; *Mrs. Cocker*, pink; *Beaute Inconstante*, *Mrs. B. Cant*, Killarney, pink; *Frau Karl Druschki*, white; *Mildred Grant*, *Mrs. Grant*, *Papa Gontier*, and *Himalaya Briar*, a single white, very pretty. These, with some six or eight handsome blooms of the new *Ben Cant*, which is referred to under awards, formed a most attractive group of beautiful kinds. Silver-gilt Banksian medal.

Messrs. William Paul and Son, Waltham Cross, showed *Waltham Rambler*, a most profusely flowered kind of rose and white colouring.

*Athyrium f. ramulosissimum lineare* was shown by Mr. J. Edwards, Herbert Street, Blackley, Manchester. It is curious and distinct crested form.

*Lilium concolor* with self scarlet flowers was shown by Messrs. Veitch and Sons, Limited, Chelsea, and two handsome vases of *Roses* came from Mr. Chas. Turner, Slough, Muriel Pike and Caroline Testout being the two kinds shown.

## ANSWERS TO CORRESPONDENTS.

**Names of Plants.**—*H. Birkin-haw*.—1, *Polemonium æruleum* album; 2, *Phacelia congesta*; 3, *Geranium arvense* album; 4, *Centaurea ruthenica*; 5, *Hedysarum coronarium*.—*T. and P.*.—1, *Genista tinctoria* var. *floropleno*; 2, dark-coloured *Veronica* (*V. Tenebris*); 3, *Campanula Schrenkii*; 4, light-coloured *Veronica* (*V. austriaca* var. *pinnatifida*); 5, *Senecio Doronicum*; 6, *Senecio Smithii*.—*A. R.*.—*Mesembryanthemum curviflorum*; 2, *Mesembryanthemum tricolor*; 3, *Mesembryanthemum edule*; 4, *Sedum prœcolum*. The Corsican *Thyme* is *Mentha Requienii*. The *Cratogeomys* appears to be correct. Both *Eleagnus* appear to be longipes, but the specimens were too small for correct identification.—*J. C. L.*.—1, *Gentiana cruciata*; 2, *Astragalus*, but specimen insufficient for identification; 3, *Vicia Cracca*.—*J. F. A.*.—1, *Veronica saxatilis*, pink variety; 2, *Alyssum* sp. (specimen too poor for identification); 3, *Verbascum phœniceum*; 4, *Philadelphus Lemnini*; 5, *Campanula pusilla* alba; 6, *Dianthus* sp. (kindly send a better specimen); 7, *Sedum rupestre*; 8, *Neillia opulifolia* var. *Intea*; 9, *Spirea Menziesii* var. *F. A. B.*.—Flower is *Calochortus canaliculatus*, plant *Acaena ovalifolia*.

**Strawberries damping** (BERBES).—Your complaint as to your *Strawberries* failing to swell and damping or rotting on the ground in this season is a very common one unhappily, and is entirely due to the continuous cold rains and absence of sunshine. Your only hope to improve the

chance of ripening is to lift the clusters of fruit bodily from off the ground so that they hang in the air, where they can more readily dry. Very good supports are made by using lengths of fairly stout wire, 16 inches long, bending down the ends each 6 inches, then fixing the points of those in the ground beside a plant, and lifting the clusters of fruit so that they rest on the bar of wire thus left between the two ends. A very simple plan also is to get ordinary laths, cut some of them into 6-inch lengths, point all at one end, and at the other cut out a little form of rest or crutch. Fix these with the crutch ends upwards 2 inches into the soil near the plants, and place a thin strip of wood across the tops to form rests for the fruit clusters.

**Lilium Martagon album "diseased"** (S. T.).—The samples sent show no trace of disease. They have doubtless been injured by late frosts, and the injury has been all the more severe owing to sunshine having promoted a rapid thaw. Your best course will be to move the plants to a site screened from early morning sunshine or to protect the plants another year where they now stand with Fir branches or similar material should late frosts threaten. We have seen several specimens in various parts of the country that have similarly suffered this season.

**Diseased Cucurbit root** (A. F. S.).—The Cucurbit plant you sent was badly attacked by the Root eelworm (*Heterodera radicola*). There is no known remedy short of pulling up the plants and burning them as soon as the disease is recognised and removing all the soil which could possibly contain any of the pest. This you appear to have done. I suppose this disease may be said to be infectious, but one plant cannot "catch it" from another unless the worms or their eggs pass from one to the other,

just the same as in human diseases. The germs or microbes from an infected person must pass to the other before the latter can be attacked by the disease.—G. S. S.

**Periwinkle** (M.).—You cannot have a more beautiful flower for your rough bank than the large Periwinkle.

**Pœonies dying** (W. A. P.).—The cause of failure is in the first place due to position. The plants were grown where they caught the early morning sun whilst in a frozen condition some time during May or early June. This is the cause in the first place of the flower buds being burned up and the plants falling over, as decay sets in in the part which has been caught by frost and sun, and if this happens to be near the ground where the sap is rising it becomes attacked by millipedes or any other insects (drawn by decaying vegetable matter) which may be in the neighbourhood. The upper growths or flower buds become burnt up and the sap is dried up. Your friend doubtless planted his in a south-west, west, or north-west aspect.

**Apples for profit** (H. WOODWARD).—"Question 1. Do you advise planting bushes on the Paradise, 302 to the acre, for market or standards?" Bushes on the Paradise stock will yield better crops in less than half the time that standards on the Crab would. We therefore advise you to plant bushes. Your loamy soil on gravel is well suited to the growth of both the Apple and the Plum, and the distance you propose planting the trees apart is correct, seeing that you propose growing other fruits between. The land should be well manured and bastard trenched before planting. "Question 2. What is the average yield per bush on Apple trees on Paradise? Is 100lb. too much to expect?" Yes, certainly, for at least six or seven years. It is scarcely possible to give the yield of trees, so much depending on the position, quality of the soil, the seasons, and, more than all, perhaps, on how the land has been cultivated and prepared before the trees were planted as to future profitable returns, but all the conditions being favourable the planter may rest assured of a generous return in due time. "Question 3. As to varieties." Those mentioned are good. We would add the following; they are placed in the order of ripening: *Kitchen*—*Lord Grosvenor*, *Fromore Prolific*, *Cellini*, *Ryder*, *Beauty of Stoke*, *Blenheim Orange*, *Newton Wonder* (this is the coming Apple, and should be planted largely), and *Annie Elizabeth*. *Dessert*—*Early Harvest*, *Duchess of Oldenburgh*, *Devonshire Quarrenden*, *Worcester Pearmain*, *James Grieve*, *Allington Pippin*, *Rosemary Russet*, *Brownlee's Russet*, *Lord Burleigh*, and *Sturmer Pippin*.

**Cabbage maggot** (C. B.).—We have not in all the range of vegetable pests one more difficult to deal with than is the Cabbage maggot (*Anthomyia brassicae*). Of course, it is not to be confounded with the moth (*Plutella brassicae*), the caterpillar of which preys on the leaves and can be kept down somewhat by hand picking and fine salt sprinklings. The maggot, on the other hand, preys on the stems and roots, and produces in rapidly decaying and eventually dying leafage very much the same results as is seen when the plants are attacked by the formidable club

fungus or anbury. The fly breeds rapidly, so that there are several generations of the maggot in one season. Entomologists describe the fly and its habits freely enough, but in the matter of remedies they have to rely on those traditionally advised or on the experience of Cabbage growers. Of positive remedies there are, perhaps, none, but of palliatives considerable. Dressings of lime and soot are well-known; so, also, is gas-lime, the most potent of all, but a palliative that cannot be applied to growing crops very well, although when, as in your case, the soil year after year seems full of the maggot, nothing but drastic action will do any good. When plants show signs of injury at the roots, lift each one carefully with some soil attached, and either bake the whole or cast into a pan of boiling water. If the trouble spreads and there is every prospect of the entire breadth being destroyed, get gas-lime, break it up fine, and strew it about thinly, then at once fork it in. No matter if it at once kills the Cabbages, it will also kill the maggot. Also in the winter, on ground it may be proposed to plant with Cabbages in the spring, spread over a bushel of gas-lime per rod. Let it pulverise for a month, then re-spread, and dig it in. A light dressing of salt to wash in during hot weather should do good. Individual waterings of the affected plants with strong soot-water should also do good service.

**The best zonal Pelargoniums** (IGNORAMUS).—We conclude that your enquiry refers to the zonal section of Pelargoniums, popularly called Geraniums, and not to the show and decorative classes which are usually referred to as Pelargoniums. The names of a dozen good varieties both of single and double-flowered forms of zonal Pelargoniums are—Single: *Comtesse de Morella*, scarlet, large

white centre; *Countess of Buckingham*, deep rose pink; *Duchess of Marlborough*, soft salmon; *Hall Caine*, cherry red; *J. H. Ardenne*, orange; *Lilacina Improved*, lilac; *Lord Rosebery*, bright crimson; *Menelik*, deep magenta-rose, large white centre; *Niagara*, white; *Royal Purple*, purple; *The Khalifa*, deep salmon; *W. E. Corden*, scarlet, white eye. Double: *Agallia*, purplish; *Apotheose*, deep rose, large white centre; *Charles Gououd*, scarlet, large white centre; *Fraicheur*, white edged pink, like a *Picotée*; *Gustave Enrich*, clear scarlet; *Hermine*, white; *H. M. Stanley*,



LARGE BLUE PERIWINKLE.

deep rich pink; *Joyful*, salmon-edged white; *Lady Candahar*, bright salmon; *M. Alfred Erckener*, yellowish vermillion; *Raspail Improved*, deep scarlet; *Sombre Horizon*, deep rich crimson. The principal sweet scented varieties are: *Crispum*, citron scented; *Dale Park Beauty*, prettily divided fragrant leaves; *Denticulatum majus*, leaves finely cut; *Duchess of Devonshire*, sweet scented, pretty bluish-tinted blossoms; *Fair Ellen*, large Oak-shaped leaves; *Glacifolium*, leaves divided like a fern; *Lady Mary*, nutmeg scented; *Lady Plymouth*, variegated Oak-shaped leaves; *Little Gem*, a compact grower, with bright rose flowers; *Lady Scarborough*, leaves much cut and highly fragrant; *Pretty Polly*, almond scented; *Prince of Orange*, small leaves with the fragrance of an Orange; *Prince of Orange*, variegated like the last, but with variegated leaves; *Pheasant's Foot*, large fragrant leaves; *quercifolium*, Oak-like leaves with black centre; *quercifolium minus*, like the last, but much smaller; *Radula*, handsome, much divided leaves; *Radula major*, larger than the last; *Shottesham Pet*, has a distinct and pleasing fragrance; *tomentosum*, large woolly leaves with the scent of peppermint. Besides these, which are all more or less of a bushy habit of growth, there are two or three forms of what is known as the old *Unique*, which are of a loose rambling character with fragrant leaves and shaly blossoms. They are: *Old Unique*, deep lilac; *Scarlet Unique*, scarlet; *Rollison's Unique*, rich violet-crimson. Messrs. Cannell, of Swanley, grow Pelargoniums very largely.

**Grafting Ceanothus** (H. T. E.).—The best time to graft the *Ceanothus* is in the latter part of the spring, the scions employed being young seedling plants, and not shoots from an old flowering specimen. The *Colutea* stocks should be young and vigorous and established in small pots. In order to get the sap active they must be taken under glass a fortnight or so before they are wanted. Grafting may be employed, and after the operation is performed the plants must be kept in a close propagating case in a warm greenhouse temperature till an union is effected,



# THE GARDEN

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[AUGUST 2, 1902.]

## ROSE EXHIBITIONS.

**W**E publish the following letters concerning our remarks about the class for Rose flowers in vases in our issue of the 12th ult. Makers of schedules should strive and lift the present day exhibition from a commonplace groove, and not follow in the steps of their predecessors, whose ideas were seldom either beautiful or original.

Those trade exhibitors are wise, too, who seek to show the individual beauty of a flower. It is against their own interests to jumble up flowers as if with a desire to pack the whole nursery in a set space. One good thing well shown is better than a dozen crowded into a meaningless and ugly mass.

YOUR remarks on the better way of showing Roses will, I hope, receive the attention they deserve from Rose exhibitors. To those of us who are on intimate terms with the flowers of the garden, the show table has long been a sad and sorry spectacle. The beautiful exhibit at the National Rose Show this year of Roses shown freely and naturally in jars and vases ought to sound the death-knell of the ugly green coffins in which the Queen of Flowers is usually shown. There is no reason whatever why flowers should not be shown naturally, even at a flower show! It would be so easy to revolutionise the appearance of our shows by inserting a rule that all flowers must be shown as grown, and, in spite of the momentary rebellions this would cause, there would be so wonderful a change in the exhibition tents of the future that a flower show might become a source of delight to the garden lover, and at the same time increase the sales of the nurserymen exhibitors. Imagine the noble plants of the herbaceous border shown so as to represent their natural growth. Who that has not seen the tall and stately growth of the Delphinium would believe that the poor decapitated specimens we see stuck in mean glass vases at a show were capable of giving such splendid effects, as some of us are fortunate enough to be familiar with in the garden? A flower show should be the means of representing free and natural growth. At present it is little more than a society function, in which the humbler and often truer lovers of flowers are excluded by the high price charged for admission until the heated atmosphere of the crowded tents has rendered the exhibits worthless. Here, again, is a chance of making marked improvements. Why should the tents not be constructed with double canvas roof and sides, having a space between where a free circulation of air would modify the fierce heat of the sun? There are now means of ventilation by electric fans, employed with excellent results in restaurants and other places. The additional expense would be little compared with the gain to all concerned in the welfare of flower shows.

SYDNEY SPALDING.

THE Editorial notes on the "New Way of Showing Exhibition Roses," more particularly referring to the classes for twelve varieties, seven blooms of

each, shown in vases, exhibited at the show recently held by the National Rose Society in the Temple Gardens, are to the point, and I am quite in accord with the sentiments therein expressed.

There is no doubt from a decorative point of view the two classes (for there was one for nine Teas and Noisettes as well) were exceedingly attractive, this being due as much to the method of staging as to the excellence of the flowers shown by Messrs. Prince, Mount, and the other prize winners. It was a great pleasure to judge these classes, but I am afraid from its very nature this method of showing the Rose cannot be extended or developed in the way the writer of the leader seemed to hope might be the case. Only nurserymen or the amateur who counts his trees by the thousand (if the standard reached is to be maintained) could ever hope to put up eighty-four blooms in twelve varieties of Roses cut with long stems such as these must be. We might have a class for five blooms in a vase as well as seven, but I do not think a smaller number of Roses in a vase would be satisfactory. The number of vases again could be reduced from twelve to six, and no doubt classes could be arranged for light Roses, dark Roses, &c. At any rate when the schedule for next year comes up before the committee of the National Rose Society no doubt the matter will be discussed.

The great difficulty in arranging for new classes is the financial one, but in a society such as the National Rose Society, whose sole aim after all is to wisely expend the whole of its income (and sometimes it expends a little more) in the cause of the Rose, one may express and entertain the hope without being too sanguine that a few pounds may be spared towards developing this new phase of Rose exhibiting.

The Editorial notes would seem to imply that this method of showing exhibition Roses was employed for the first time this year, but I remember judging a similar class at the Temple show of 1901, and think I am right in stating that even that was not the first year it had been tried.

At any rate the best thanks of Rose lovers are due to the initiator of the idea, and to Messrs. Prince, Cant, and Mount for so well carrying it out.

HERBERT E. MOLYNEUX.

THE opportune remarks in THE GARDEN of the 12th ult. will be welcome to all who desire to see our national flower exhibited in the most beautiful way. As you well remark, one of the best exhibits at the Temple Rose show was that which gained the first prize for twelve varieties of exhibition Roses, seventeen blooms of each. Here one found flowers of the highest quality shown as cut from the bush or tree, excepting a slight addition of wire sufficient to support the heavy blooms so that their beauty might be well seen. Each flower was surrounded by more of its beautiful foliage than is possible in the ordinary show box. I am not sure I would not even go further than the schedule, and stipulate that no buds should be removed, but that the blossom be naturally exhibited. A flower is not really naturally produced if it is disbudded, and there can be no reason why the lovely buds should not be retained. If a Rose plant is in good soil, and receives the highest and most intelligent cultivation, it is quite able to support the surrounding buds, as well as develop the centre flower to its greatest perfection. From a utilitarian point of view a Rose should not be disbudded, for unless one possesses a large number

of plants the season of flowering is much curtailed, and even where a quantity is grown, if the centre bud is retained and the side buds removed, the flowers appear almost simultaneously, and, moreover, far too often we find the bud retained is imperfect. Of course, one could not expect the class for seventy-two distinct blooms to be shown in vases, but there is no reason why the trebles should not be exhibited in this way, and why not start a class for five blooms of a sort? This would give as true a representation of a variety as seven blooms. I have often thought such a Rose society as the "National" should provide the necessary vases for exhibits of the kind described as heavy, and breakable ware are not transported without considerable trouble and expense.

I fail to see why exhibitors should be compelled to place the vases upon a flat surface, as stipulated in the schedule. Such arbitrary rules discourage original ideas, and I would not undertake to say this is the best way of displaying the vases. I certainly think some attempt should be made to exhibit a show Rose as it grows, even dispensing with wire entirely. It might not promote the beauty of certain kinds that have slender stems, but it would assist visitors to form some idea of the kinds that are produced upon stiff stems, a point so essential when required for garden display.

No one will find fault with the variety Bessie Brown as a show flower, but how disappointing it is on the plant. This is an instance where Rose and other shows are a failure. They afford very little clue as to habit of growth. Some of the earlier forms of the Cactus Dahlias, when exhibited in the prevailing style, were irresistible, and eagerly purchased, only to find they are most unattractive in the garden, unless barbarously thinned of their growths. So it has been with some of the so-called decorative Roses. We require all Roses exhibited in such a way that their true merits are observable, and for this reason I object to the huge bunches of garden Roses packed in vases.

The Rose is rapidly gaining in favour as a decorative plant, and we have much to learn before this type is placed before the public in its most attractive form.

PROGRESS.

YOUR remarks in THE GARDEN of the 12th ult. were most opportune, and should carry weight with the committee of the National Rose Society when they are preparing their schedule for another season. The class you refer to should be extended, and you will earn the thanks of many readers of THE GARDEN if by your timely allusion to the charming display of seven good blooms in each of the twelve vases that were so deftly arranged, other classes of a similar character can be included in subsequent displays. The class you refer to may be the beginning of better things, and any break away from the stereotyped method of staging the flowers in Rose boxes, which has been regarded as the only orthodox way of exhibiting blooms of good quality, should receive the hearty support of all who are interested in this delightful hardy flower. Exception might also be taken to the way the garden Roses are bunched. This is not confined to competitive displays, as many of the trade exhibits leave much to be desired in this respect. The great idea of each exhibitor appears to be to crowd as many sprays of blossoms as possible into the bunch, and in this way much of



the charm and interest which should centre around each individual bunch is lost, because the grace and beauty of the individual sprays are absent. Other special societies offer prizes for bunches of their speciality, but in their schedule of prizes it is stated that points will be awarded to bunches arranged artistically. This method applied to exhibits of freely-flowered Roses should have the effect of bringing about a desirable change.

D. B. C.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

August 4.—Grantham and District Horticultural Show.

August 5.—Royal Horticultural Society's Committee meet, Drill Hall, Westminster; Leicester Flower Show (two days).

August 7.—Midland Carnation Show, Birmingham (two days).

August 9.—Manchester Carnation Show; Crewe Horticultural Exhibition.

August 12.—Clay Cross Flower Show.

August 13.—Salisbury Horticultural Show.

August 14.—Taunton Dean, Rock Ferry, and Sheffield Horticultural Shows.

**Victoria Medal of Honour.**—The President and Council of the Royal Horticultural Society have conferred the Victoria Medal of Honour in Horticulture, vacant by the deaths of Mr. G. F. Wilson, Mr. Wm. Bull, and Mr. E. J. Beale respectively, upon Mr. John T. Bennett-Poë, Mr. George Massee, and Mr. Henry Cannell.—W. WILKS, *Secretary*.

**Roses Crimson Rambler and White Pet at Kew.**—In the Rose garden, near the Pagoda, at Kew, these two varieties are making a fine display, the crimson and the white helping each other by the contrast. The plants of Crimson Rambler are planted on a terrace faced by tree roots, the crevices in the roots forming positions for groups of White Pet. Planted several years ago both varieties have grown and grouped themselves in a free and natural way, the absence of stiffness being a great aid to the general effect. Grown in such a way as this Crimson Rambler is seen to much better effect than when planted against a wall or trained stiffly against a fence, as is sometimes the case.—D.

**Campanula mirabilis.**—I should like to know if other people have been more successful with *Campanula mirabilis* than I have been. I raised a good many plants from seed about three or four years ago. Since then many of them died, and I have only three or four plants left, but one is now in flower. The whole plant is covered with its big bell-shaped flowers; it makes one long to have more of them. *Campanula Vidallii* I find is not hardy in Cheshire. I cannot keep it on my rockwork. During the winter it always dies, but by keeping it in a frame during the winter in a pot, and then planting out, it flowers well. I have many plants in flower now, and it is a desirable campanula.—GEORGE DIXON, *Astle Hall, Chelford, Cheshire*.

**Nature study exhibition.**—On the occasion of the opening of a Nature study exhibition in the Royal Botanic Gardens last week, the Duke of Devonshire made some interesting remarks. As President of the Board of Education he assured those present that the movement had the warm sympathy of that department; if there were any truth in the statement that education is not so fully appreciated in rural districts as in towns and urban districts, the cause is that we have not succeeded in bringing education into the same relation with rural life and occupations, as it has been brought in the case of the towns and the urban districts. Last year the Board issued to managers of elementary schools circulars impressing upon them the importance of making education in the village school more consonant with the environment of the scholars, and especially of encouraging children to gain a knowledge of the common things around them. The Board now requires that Nature study shall be

taken as one of the subjects of examination. The idea which underlies this movement is, that while we know there is much to be learned from books, at the same time there is much to be learned only from the facts of Nature itself. The promoters of this exhibition were anxious to show that for every child, urban and rural, Nature study affords one of the most reliable means of developing certain faculties, and upon the development of which success in life must be based.

### Exhibition Rose blooms in April.

—It may interest some of your readers to learn that the illustration of a box of exhibition Roses, reproduced on page 57 from "Roses for English Gardens," is from a photograph taken, not in the height of the exhibition season, but on April 3 last, when of course no Roses were obtainable from the open ground. It came about in this way. Mr. George Mount, of the Rose Nurseries, Canterbury, very kindly sent me a present of a box of Rose blooms, all of which were so remarkably fine that the idea occurred to me that an illustration I much wanted at the time might be obtained by arranging the Roses in an exhibition box and having them photographed. In order to show the lasting character of the flowers I may mention that the photograph was not taken until the second day after I had received them.—EDWARD MAWLEY, *Berkhamsted*.

**"The Irish Gardener."**—We are sorry to hear that this—the only Irish journal, so far as we know, that is exclusively devoted to horticulture—will cease to appear in its present form after this week's issue.

**Mr. J. Tunnington.**—Owing to a temporary breakdown in health, Mr. J. Tunnington has resigned the post of head gardener to Sir H. Ingilby at Ripley Castle, Yorks, which he has managed so well for the last twelve years, and his many friends will wish him a speedy recovery and a career of extended success. Mr. H. Fox, gardener to the late Mr. Lawson Johnston, Kingswood, Sydenham, and formerly foreman at Ketton Hall, succeeds Mr. Tunnington early in September.

**Yucca angustifolia.**—A group of this pretty, small-leaved *Yucca* may now be seen in flower in the Bamboo garden at Kew, the plants having occupied the position for the last ten years, during the last five of which flowering has been an annual occurrence. When out of flower it is an exceedingly pretty plant, the leaves being long and graceful, freely produced, and glaucous in colour. It is an American plant, being widely distributed through Missouri, Colorado, and New Mexico. In habit it is dwarf, the stem being very short, and increasing very slowly in height. The leaves are in a large head, each leaf being about 3 feet long and little more than half an inch wide; as previously stated they are glaucous in colour, and along the margins numerous greyish filaments are borne. The inflorescence is in the form of a large upright raceme, rising from the heart of the plant to a height of from 4 feet to 5 feet. The flowers are campanulate, 2½ inches or more across, greenish and fleshy. Individually they do not last very long in good condition, but early flowers are replaced by later ones, which keep the raceme well furnished for at least a fortnight. At Kew it is growing in a sheltered position facing south in loamy soil.—W. D.

**Ligustrum sinense.**—The usefulness of this shrub for summer flowering is very apparent every July at Kew, where many large bushes are planted. It never fails to bear a profusion of flowers, which, coming as they do after the glut of flowering shrubs are over, are doubly welcome. It makes a very large bush, some specimens at Kew being upwards of 12 feet high and the same through. The leaves are evergreen, or almost so, ovate, pale green, and much thinner in texture than those of the common Privet. The flowers are small and white, and are borne in good-sized panicles, the inflorescences being more numerous than in the case of the majority of the Privets. After the flowers are over the plants again become conspicuous by reason of the small black fruits which thickly cover the branches. When grown to a large size it is more difficult to transplant than most of the other Privets, consequently a per-

manent position should be provided when it is first planted. It is in no way fastidious regarding soil, for although it prefers good loam it grows and blossoms quite satisfactorily in poor sandy soil. As the name implies, it is a Chinese plant. There is a variety in cultivation with variegated leaves, but it is inferior to the type.—W. D.

**Kalanchoe kewensis.**—The plants of this new hybrid *Kalanchoe* which were noted in *THE GARDEN* for May 24 as being in flower at Kew, and illustrated on the 12th ult., are still in bloom, so that its flowering period extends over as long a time as that of its better known relative, the popular *Kalanchoe flammea*, which, though of comparatively recent introduction, rapidly made its way into most gardens. Though this newer hybrid may not for general purposes be regarded as equal to *K. flammea*, it is a very beautiful plant, and as above stated its bright rose-pink blossoms maintain a display for a lengthened period.—T.

**Trichinium Manglesii.**—A particularly fine specimen of this delightful Australian everlasting is just now in flower in the cool portion of the T range at Kew. It is a plant rarely seen outside a botanic garden. According to "The Dictionary of Gardening" there are about fifty species of *Trichinium* known, but the only one that figures in the "Kew Hand-List" as being in cultivation at Kew is that at the head of this note. With the exception of the flower spike the entire plant rises but a short distance from the soil, and the small narrow leaves are not particularly noticeable. The inflorescence consists of a comparatively large white oval-shaped head, like a ball of fluffy cotton, from which the bright pink tips of the perianth protrude. Each head is borne on a thin wiry stem from 6 inches to 9 inches long. The specimen at Kew, which by the way is in a pot only 5 inches in diameter, is carrying no less than twenty-four of these heads, and as may well be imagined forms a charming feature. This *Trichinium* has long been well grown at Kew, but the specimen there now has certainly not been surpassed. Not the least notable feature is the fact that the flower heads remain fresh and bright a very long time. It is a native of the sandy districts of Australia, and was first introduced in 1838. Under cultivation it will not conform to the rough and ready methods so generally followed with many things, but at the same time with a reasonable amount of care success may be anticipated. A soil composed principally of good friable loam, with a little well-decayed cow manure and silver sand, will suit it well, and a light airy shelf in the greenhouse is just the place for it. Repotting should be done as soon as possible after the flowering season is past, and in carrying this out the greater portion of the old soil should be removed. Propagation is effected by means of root cuttings, taken off when potting, cut up into lengths of about an inch, and dibbled into well-drained pots of sandy soil. If placed in an intermediate house temperature they will soon grow.—H. P.

**Clitoria Ternatea.**—Flowers of a clear decided blue are admired by nearly every one, yet among indoor plants they are very limited. One of the most pronounced is this *Clitoria*, which has flowers of a clear rich indigo blue, that is in what is regarded as the typical form, for like its near allies the Peas and Beans it is somewhat variable. There is a variety with white blossoms, while parti-coloured and semi-double flowers also occur. It is, however, to that form with brilliant blue flowers, showing sometimes more or less of a white eye that my remarks particularly apply. It is an annual plant that should be sown in heat early in the spring, and the plants grown on freely afterwards. The slender climbing shoots soon drape a considerable space, either in the stove or intermediate house, that is if they are liberally treated at the roots and freely syringed, for without this red spider will often attack the foliage and quickly disfigure the plants. When in good health and studded with its brilliantly coloured Pea-shaped blossoms this *Clitoria* is surpassed by no other climbing plant. It was first introduced from the Malayan Archipelago about 160 years ago, but it is now widely spread throughout many parts of the tropics.—H. P.



**National Sweet Pea Society.**—In our report of the exhibition recently held by this society at the Royal Aquarium, we referred to three varieties shown by Messrs. Dobbie and Co., Rothsay, as having obtained certificates. These, it appears, were given certificates at the Wolverhampton Show, and not at the Aquarium. Messrs. Dobbie write: "Only one of our new varieties was honoured by the National Sweet Pea Society, viz., Florence Molyneux, but no certificate cards were forthcoming."

**Curious Strawberry fruit.**—Lady Fowler, Inverbroom House by Garve, Ross-shire, N.B., sends a Strawberry fruit with the petals of the flower retained. This is certainly unusual.

**Eremurus robustus near Kelso.**—I hear this noble plant has flowered exceedingly well so far inland as Newton Don, near Kelso, in Lady Nina Balfour's garden. This is the more remarkable as near the sea coast the growths were cut back by the severe frosts in early spring, but not improbably backwardness in growth would save it in the colder districts, as has happened with the Apple crop in not a few instances.—R. B.

**A good Potato.**—Ringleader (Sutton's) is now lifted, and the produce from my cold soil has surprised many, the cooking qualities of the tubers being exceptionally good. The crop is excellent, and the clear skin and shape of the tubers is a point of importance. On February 1 I began taking them from pots, and when lifted last week for the seed, &c., thirty-four good-sized Potatoes were lifted from one root. They were planted in half-rotten manure. Where the manure was very decayed the produce was not so good.—T. JOHNSON.

**A few good Peas.**—Many probably have never tried Telegraph by sowing it in January in a cold frame and planting out first week in April. My plants came through the late frosts unhurt in any way, and the strong haulm carried larger pods than I have seen for some time in Norfolk. I used to sow this variety in January on Celery trenches on an east border, and they always came in directly after Earliest of All, and before that variety was over. This year they came in after Chelsea Gem and Marvel. Seed of the latter was sown in puts in a cold frame on the same date. They were protected from frost and the frame removed when warm weather came; the result was an earlier gathering, a week before those that were transplanted. Autocrat came through the frosts untouched here (Norfolk), and has podded well.—T. JOHNSON.

**Royal Horticultural Society.**—The next fruit and flower show of the above society will be held on Tuesday next, in the Drill Hall, Buckingham Gate, Westminster, 1 to 5 p.m. A silver Flora medal will be offered for the best collection of Cactaceous plants, open to amateurs. For other Cactus prizes address Mr. Blogg, 65, Brighton Road, Croydon. A lecture on "Small Fruits from a Private Garden Point of View" will be given by Mr. J. Smith, V.M.H., at three o'clock. At a general meeting, held on Tuesday, the 22nd ult., thirty-three new Fellows were elected, amongst them being the Countess of Kingston, Lady Mary Morrison, Lady Stradbroke, and the Right Hon. A. H. D. Acland, making a total of 859 elected since the beginning of the present year.

**The National Chrysanthemum Society and the sale of the Royal Aquarium.**—The first thought to enter the minds of those interested in promoting the cultivation of the Chrysanthemum on hearing the news of the sale of the Royal Aquarium was how it would affect the three exhibitions of the National Chrysanthemum Society arranged for the present year. It was pleasing therefore to be reassured by Mr. Josiah Ritchie, in one of the morning papers, that the series of shows for the current year would be carried out as originally intended. The Royal Aquarium has been the home of the National Chrysanthemum Society for many years, and the directors have treated the National Chrysanthemum Society in a most liberal manner, their contributions for some years past reaching an annual total of £375. Although many will regret the need for acquiring a new place of exhibition,

others will no doubt be glad to transfer their interests to a better lighted and more beautiful place for holding their shows. The agitation of a few years ago, in which a number of members and others endeavoured to find new quarters, and who in so doing gathered much useful information respecting other large buildings in the metropolis, should now prove useful. The proposed horticultural hall may after all be the one thing needed by the National Chrysanthemum Society, and to what better purpose could it be put? In any case the executive committee of the National Chrysanthemum Society should bestir themselves that no time be lost.—C. A. H.

**A visit to Messrs. Sutton's.**—His Excellency the Prime Minister of Uganda, accompanied by his secretary and the Rev. Ernest Millar, who acted as interpreter, visited Reading recently, and whilst there the distinguished visitors were driven to Messrs. Sutton's trial grounds, where they were much interested in the flowers and vegetables, many of which varieties are now in use in Uganda; they afterwards attended a luncheon given in their honour by Mr. and Mrs. Martin Sutton in the Abbey Hall.

**Messrs. James Veitch's Feltham Nursery.**—In the process of remodelling their nurseries, Messrs. J. Veitch and Sons, Limited, having transferred the soft-wooded plants from Chelsea to Feltham, have left to Mr. Weeks, who for many years has had charge of these, the responsibility of managing the same department at Feltham, where he will no doubt find his work simplified by the purer atmosphere. On his departure from Chelsea his colleagues and friends presented him with a suitable memento expressive of their appreciation of his good fellowship. Mr. John Heal presided on the occasion of the presentation. The proceedings were of a most genial character, and illustrated the good feeling which exists between Mr. Weeks and his colleagues.

**Sweet Pea Dorothy Eckford.**—At a meeting of the committee of the National Sweet Pea Society, held on the 15th ult., no less than five pure white Sweet Peas were shown. These were named White Queen, White Wings, Lily, Purity, and Dorothy Eckford, and all were identical. Each had been sent with seed of the variety Miss Willmott, and some discussion took place as to which name should be recognised. It was decided that if Mr. Eckford could prove that the seeds of the white variety were accidentally mixed with those of Miss Willmott the certificate of merit should go to him as raiser. This Mr. Eckford has done, and the accepted name is Dorothy Eckford. The exhibitors—Messrs. Dobbie and Co., Hobbies Limited, I. House and Son, and Jones and Sons—will, it is hoped, recognise the name so as to prevent needless multiplication.—H. J. WRIGHT, *Hon. Sec.*

**Central Park, Liscard.**—This beautiful park, which proved such a desirable position in which to hold the summer show, should be highly prized by the residents of Wallasey, and Mr. W. Roaking, superintendent for the past twenty years, is to be congratulated upon the high efficiency that is apparent throughout the park. The groups of Rhododendrons, which are worth a journey to see when in bloom, give evidence of the best of culture, and the Rose beds are quite a feature. The herbaceous borders are bright with Phloxes, Delphiniums, Hollyhocks, Gaillardias, Spiræas in variety, Alstromerias, Irises, Eryngiums, &c. An unusual sight in the neighbourhood of Liverpool is that of plants of Camellias and Magnolias on walls; the Camellias still occupy the same position as when glass houses covered them, and although they have lost their shelter they still continue in good health. On the borders yellow and dwarf crimson Celosias are most effective in their colouring.—R. G. W.

**Sweet Peas in Essex.**—One of the finest sights in the seed-growing district of Essex is a field, 6 acres to 7 acres, belonging to Messrs. E. W. King and Co., seed growers, Coggeshall, on which they are growing for seed sixty of the choicest-named varieties of Sweet Peas and ten varieties of the Cupid race. The field is on the

Kelvedon Road, and has been a great attraction, people driving miles to see the flowers. On entering the field the first to strike the eye are the Cupid varieties, which look like a huge carpet, the pink being very striking. Next to them is an acre of very fine mixtures containing all the giant-flowered varieties. Further on are the crimson varieties, such as Mars, then the beautiful orange Lady Mary Currie, but the most striking to visitors is the large acreage of Lady Grisel Hamilton, the finest lavender variety, and of perfect form. Many favour the American-striped kinds, such as Mrs. Joseph Chamberlain and Princess of Wales; in fact, every imaginable colour is to be seen, and being in a mass they appear very pleasing. Such an acreage of Sweet Peas is seldom met with in England. This firm make a speciality of Sweet Peas, and have trial rows of nearly 160 varieties. Besides numerous first prizes they have obtained at various shows, they have again been awarded a silver medal at the Sweet Pea show held at the Royal Aquarium for a display of seventy-two varieties, which were gathered from the field growing for seed and not for show.

**Comments on the Manchester Rose show.**—After the long interval of seventeen years the Rose has again held high court in Cottonopolis, for undoubtedly no Rose exhibition of such magnitude and beauty has before been seen in the neighbourhood of Manchester. The exhibition house of the Royal Botanical and Horticultural Society may be termed an ideal one; it is a lofty glass structure some 350 feet long and 60 feet wide, with a luxuriance of Ampelopsis drooping from the roof, but whether the large Palms that were arranged down the centre of the building served any good purpose is doubtful. Some idea of the quantity of flowers shown may be had when it is stated that the number of exhibitors was fifty-six with 319 entries, the nurserymen sent 2,624 blooms, the amateurs 1,928, and in the open classes were 360, making a total of 4,912. Of bunches of Roses there were: Amateurs, 54; open, 216; total, 270. Many points of superior excellence might be noted, the winning lot for the nurserymen's trophy and gold medal, won by Messrs. R. Harkness and Co., were remarkable for the symmetry and finish of the blooms. The box of thirty-six distinct varieties from Mr. Hugh Dickson, Belfast, was a notably fine exhibit, and Messrs. Alex. Dickson and Sons, Newtownards, in the classes for eighteen Teas or Noisettes, and for twelve light coloured Roses, showed some beautiful flowers. Messrs. Alex. Dickson also secured the society's gold medal for the Hybrid Tea Rose Florence Pemberton, which promises to make an excellent exhibition flower; it is evidently a most vigorous grower. Of the white blooms which gained silver medals both nurserymen and amateurs exhibited excellent flowers of the beautiful White Maman Cochet, and of the light coloured ones similarly honoured Mildred Grant. A magnificent bloom of Prince Arthur, another of the silver medal blooms, was shown by the Rev. R. Langtree. Of newer Roses, Benjamin Cant and Frau Karl Druschki, a bright crimson and snow white respectively, were greatly admired and promise to prove valuable acquisitions. Amongst other points of interest may be noted the twelve vases (seven blooms in each) set up by Mr. G. Prince as a means of showing the true beauty of the Rose. The newer introduction of showing bunches of garden flowers brings into use many kinds that are unique in colouring, as might be seen in the exhibits of Messrs. John Mattock, Frank Cant and Co., and Paul and Son. These few notes of a grand show would be incomplete without some recognition of the valuable help of Alderman James Huy, Lord Mayor of Manchester, who presided at the luncheon; of Mr. Edward Mawley, the secretary of the National Rose Society; Mr. P. Weathers, the curator of the Botanical Gardens; and to the small army of exhibitors who made the grand show. The attendance proved highly satisfactory, especially towards the evening; it was then difficult to get near the exhibits. It is to be hoped that this may act as an incentive to the council to invite the National Rose Society before the lapse of another seventeen years.—R. G. W.



## THE KITCHEN GARDEN.

### VEGETABLES OF LATE SPRING.

IT may appear out of place to write about spring vegetables at this season, when there is an abundance of every sort, yet to have a good supply we must prepare some months in advance, and July and August are important months in this respect. There can be no doubt but that the spring Cabbage comes first in importance at the season named, and the Borecoles or Kales are important also. I know that some will look upon the Broccoli as an excellent spring vegetable, but in many gardens the crop is uncertain. I do not advise planting large breadths of this vegetable in any garden where regular supplies must be maintained. For instance, at Syon we have planted thousands of Broccoli and frequently had only a few hundreds to cut from, whereas in Northumberland the crop has been much more reliable. This shows how uncertain this plant is; only last season in February our plants were very much injured by spring frosts. I note this difficulty as many may think I had overlooked one of the most important of the winter Brassicas.

I now come to the spring Cabbage for cutting in April and May, the time of year good green vegetables are much appreciated. It is well to make two sowings, in the middle of July and early in August. There can be no doubt but that the most reliable crop is that sown at the later date, as if the plants in the seed bed are attended to they make good roots before severe weather sets in. I would advise ample room and early planting, and as regards the planting I differ from many as to the way the plants should be grown. Many excellent cultivators advise newly-dug—often deeply-dug—land, and well enriched with manure. I say rather plant on very firm land—that is, not dug—and by so doing get a sturdy growth. The earliest supply of spring Cabbages invariably follows spring-sown Onions; our land, being very light, is trodden and rolled for the Onion crop, and when the latter is cleared drills are drawn for the Cabbage, and no fresh manure given; but I should add the land was well manured for the Onions. By planting in firm land we get a plant better able to withstand cold and fogs. It is an easy matter to give manure when new growth begins early in the season. It will be seen at a glance that the seedling, when planted in rich manure, must naturally make a soft growth. Now a hard, firm—if somewhat smaller—growth is much better. The plants have a natural tendency to grow away freely when manured early in the year. I am aware even with every care there are losses, but I would advise early planting before the seedlings become drawn, and I prefer an open situation and such varieties as Ellam's Dwarf, Sutton's April, and Imperial.

I now come to the Borecoles, which give a supply even when the Cabbage fails. We plant large breadths of this most useful spring vegetable for March, April, and early May cutting. The culture is so simple a few words will describe it. We usually plant after early Strawberries; this season, I regret to say, we are behind in this matter, our Strawberry crop being later. We treat the land well for Strawberries—double dig, liberally manure, and take only one crop of fruit. As soon as the fruits are cleared the plants are hoed up, and drills drawn for the Kales in the hard Strawberry bed, as in our light soil we find a hard bed much best. By planting in loose, freshly-dug soil a larger plant results, but one not so well able to stand our very variable climate. We require Kale as late as possible, and I find by this mode of culture a sturdier plant is much later running to seed. It is useless to plant poor seedlings late; the plants should have good roots and be vigorous. I would advise sowing Kales much later than is often done, and by all means give ample room. I know there is a difficulty in late sowing in dry seasons, as the seeds take longer to germinate. In the north sowings must be early, also planting,

and in many cases ground can be cropped that has been at rest for a time, no hard line need be drawn, as soils and situations produce varying results. As regards varieties there are some splendid Kales—Read's Improved Hearting is one of our best late Kales; the newer Arctic Kales are equally valuable. These Messrs. Sutton have recently sent out, and they are extremely hardy and of good quality. The older Asparagus and Cottager's Kale should not be overlooked for a later supply of good tender sprouts.

G. WYTHES.

## FOREIGN NOTES.

### NOTES FROM FLORENCE.

A REMINISCENCE OF THE LATE MR. WM. BULL.

THE obituary notice in THE GARDEN of the late Mr. Bull recalls to me that in one of the old historical gardens of Florence there is a very large crimson Rhododendron, said by the late owner of the garden to have been sown fifty years or even more ago by an Englishman of the name of Bull, then head gardener of the Royal Boboli Gardens. The garden in which this Rhododendron stands in a huge *coucha* is that lying between what is now the Etruscan Museum (formerly the Palace of the Ambassadors) and the Church of the Annunziata Santissima. It is bounded on the side of the Via della Colonna by a very high wall, over which the Roses nod their heads, and on the opposite side by a kind of covered gallery, or loggia, running all the way from the Palazzo, by which the foreign ambassadors when lodging in it wended their way to their pew in the church. This loggia has now fallen somewhat into decay, but the covered bridge in which it terminates and leads into the church is still standing; it is best viewed from the corner of the Via Colonna just at the Hospital of the Innocenti.

It is a beautiful old garden, and the old nurseryman—now dead—who leased it from the Government had a real affection for his plants and did not regard them only from the ordinary Italian point of view, i.e., that of "commercio," and he used to point to this Rhododendron with great pride and speak of its English origin. It would be interesting to know if it was one of the late Mr. Bull's family who was the raiser thereof.

Florence.

TUSCAN.

### THE UNHEATED GREENHOUSE.

XIII.—ANNUALS AND BIENNIALS.

NOTHING is more dismal and ugly than a greenhouse left bare and empty of its proper occupants. Not seldom, indeed, it then becomes a storehouse for all sorts of garden lumber, the untidiness of which it fails, unluckily, to hide. Yet it is not an unlikely thing to happen that one finds oneself at some time or other with a greenhouse on one's hands, yet for a period too short to accomplish much in the way of plant growing. A year's tenacity of house and garden is, in truth, for gardening purposes, an awkward gap to fill. It is, of course, open to any such tenant to put the conservatory into the hands of some neighbouring florist should there be one within easy distance, and under some circumstances this is, doubtless, the best way out of the difficulty. If the greenhouse, however, happens to be unheated a professional gardener will probably shake his head in despair of doing himself any credit during the winter months, and, beyond supplying a few evergreens in pots, may even decline altogether to attempt any floral decoration until the spring. It is not to be denied that there are considerable obstacles in the way, and for the winter almost everything depends upon the time available for preparation, but a good deal may be done at the cost of a few shillings and a little time and trouble with annuals and biennials or certain other plants, possessing, strictly speaking, a longer

term of life, but which may be treated as such. A few suggestive hints as to the most suitable may be useful, not only to those who mean to depend entirely upon such yearlings, but for others, who will find many of them exceedingly valuable if not indispensable additions to their flowering plants. Where time fails to raise these for ourselves it is generally possible to buy strong seedlings of ordinary sorts ready for potting, so that we need not wholly despair of procuring decorative material of this temporary nature and with little outlay.

Annuals are often regarded with some contempt, but it may be traced in most cases to failure in growing them well, resulting mainly from the initial mistake of sowing the seed too thickly. Seed is often minute, marvellously so when one thinks of the germ of life and the earliest food for that germ, which is, in one way or another, packed up in it. It does not at all follow, however, that the plant produced from a microscopic seed should require to be looked at through a magnifying glass when full grown, and this we must always take into account. A single seedling of *Nemophila* or *Limnanthes* will make a grand free-flowering specimen if allowed proper scope, when a dozen cramped into the same space will be utterly worthless and disappointing. Seeds, minute or otherwise, cannot be sown too thinly, and with the larger kinds, like *Tropæolum* or *Lupine*, it is a good plan for indoor work to put them singly into the smallest pots and to shift them as required into larger sizes. Annuals, again, under these circumstances must never in the earlier stages be allowed to get pot-bound, needing constant attention from the first, until they get their final transfer into the flowering pot. Hardy biennials may often, on the contrary, be planted outside with advantage to make their growth before being potted for the greenhouse, for these require a somewhat longer time to bring them to the flowering stage, and are generally sown one year to flower the next. The time of their flowering depends in most cases on the time of sowing and subsequent culture, a statement not so obvious as it may seem at first sight, because they are sometimes contrary in their ways, and may, if they are in sultry mood, pass over a whole season.

A houseful of Wallflowers in midwinter, some in flower and some coming on, would be no mean success to attain. The full red-brown of Harbinger and the clear yellow of Belvoir Castle, which are amongst the earliest to bloom, are at all times beautiful, and other later well-known varieties, to be found in every seed list, will give intermediate shades never out of harmony with each other. Wallflowers are really perennial in duration, though not very long-lived, but as they flower within a few months of sowing they are commonly treated as annuals. For very early winter the first sowing is best made in April, and a second may follow three weeks later. Where there is a bit of garden ground the young plants may be pricked out 3 inches apart in rows with not less than 6 inches between the rows. Later on, when they begin to require more room, every second plant may be transferred to a new row, allowing 6 inches between each of them. Here they may remain until October, when they can be potted in 5-inch pots for flowering in the greenhouse. Where there is no garden, boxes or zinc trays may be made to serve the purpose. In either case care must be taken to keep the plants weeded and watered in dry weather. Wallflowers are hardy things—never more so than when grown on the scanty foot-hold of a crumbling wall, their natural home. Cultivation in rich soil tends to make them less hardy, and the shelter of glass, therefore, is very welcome in severe and especially in windy weather, and will also hasten the flowering time. Double German Wallflowers are very popular and handsome with their quaint purple and primrose tints, but they are more tender and not so fragrant as the smaller-flowered common sort. They come into flower later, and the seed need not be sown till May.

Stocks, which are mostly biennials, are neither so hardy nor so early as Wallflowers, but they are very useful, and if seed of the intermediate section



be sown in June and treated much in the same way as recommended for Wallflowers they will flower quite early enough to take their place when the Wallflowers begin to grow shabby. Some experts prefer to grow them entirely in pots, giving them shifts into larger sizes as soon as the roots touch the sides. All the Year Round is a very fine white variety, and there are crimson and purple shades in the same strain. For a later display the annual Ten Week Stocks may be sown as early as February under glass, and with good cultivation will be in fine flower long before any of their kind out of doors. The large, sweet-scented flowers of this section are very beautiful in the infinite variety of their delicate tints.

Scarcely any introduction of recent years has been more welcomed than that of the annual Margherita Carnations of Italian origin. Sown early under glass, planted outside as soon as the seedlings are strong enough and allowed room enough to develop, they will grow during the summer into vigorous plants well set with buds in time to be potted with other things for winter flowering. If the season be favourable many buds will open before Christmas, and with a good strain of seed, which is always a most important factor in the case, a very large percentage of the plants will give fine double fringed flowers of refined hues. The single "rogues" are also extremely pretty, and by no means to be despised as decorative plants. Few people realise how well the common white Pink, as well as its rose-coloured form, treated practically as annuals, respond to gentle forwarding under glass. Tufts of cuttings or divisions of old plants put out in new soil in rows in May can be lifted and potted in September. They may then stand out of doors with the pots plunged in ashes until Christmas or thereabouts, and will come into flower about nine weeks after being brought in. How welcome they are, filling the greenhouse with sweetness on an April day, none can tell but those who have tried them.

Sweet Peas are a great stand by, but it is essential that they should be sown about midsummer to come in for very early blooming. Three seeds sown in a small pot and transferred with as little disturbance of the roots as possible into larger sizes and grown out of doors will make beautiful specimen plants. They may be pinched back now and then to make them bushy, and will flower well in a 10-inch pot; but they should be brought under shelter before the first early frosts at the end of September or they may receive a check which will retard their blooming. Eckford's good varieties offer abundant choice of colour, and these should be kept distinct, as mixtures are seldom desirable or effective.

Any of the hardy annuals which are recommended in the seed lists for autumn sowing, which usually means August and onwards, may be tried with a fair chance of success, and should flower by relays from early spring. Mignonette will scarcely be overlooked. The old-fashioned kind, though not so large or handsome as Machet, Parson's White, and some of the Covent Garden strains, is the sweetest of all. Three seeds sown in a small pot, the strongest only to be retained, and repotted as required in rich soil will give very satisfactory results.

Tender annuals for summer and autumn blooming, such as Asters, Tropæolums, Mimulus, Nemesis strumosa, Salpiglossis, Celosias, Martynia fragrans, &c., must be sown under glass in March, April, or May, according to circumstances, and require a good deal of care in pricking out, potting, and in some cases pinching back, with as much open air as possible to prevent their spindling. These may be so arranged as to flower until late autumn. Greenery should not be forgotten, for which the Japanese Hop, Zea Mays, and some of the elegant annual grasses will answer well. The biennial Fish-bone Thistles (Chamaepuce Casabonæ and C. Diacantha) are also very useful for this purpose. Cosmos

biinnatus, with its finely cut leafage, makes an effective foliage plant while it is young, and a few out of a batch of seeds might be headed down and reserved for this purpose, but the plants intended to flower will do better if summered out of doors. This, being one of the latest of autumn-blooming annuals, is not very satisfactory out of doors for our climate, but if grown under generous conditions it is exceedingly ornamental in the greenhouse during October and November, either in its white or light purple form. One or two dwarf annuals of a succulent character are well adapted for summer flowering under glass—Portulacas, which enjoy the extra heat and are delightfully gay in their vivid colouring of crimson, yellow, and purple, and the free-flowering Mesembryanthemum tricolor, pink and white, with a dark eye. These should all be sown very sparingly, as they are apt to resent transplanting, and do better if they are thinned rather than pricked out, looking best when grown in shallow troughs or pans. The different varieties—orange, yellow, and white—of Iceland Poppy (*P. nudicaule*) do well treated as biennials, and, sown in autumn, make charming pot plants for early spring.

More distinctly a greenhouse plant and easily grown as a biennial is *Celsia Arcturus*. The spikes of yellow Mullein-like flowers, purple tufted, on wiry, upright stems, set off by the grey-green foliage, are unusually bright and attractive. Seedlings from an early sowing grow quickly and come into flower comparatively soon. It is a plant of neat, compact habit, and is singularly amenable to circumstances. Another species, *C. cretica*, very different in habit and still more Mullein-like, may be treated in the same way, and is very handsome and distinct. Something may be found to suit all positions and all tastes. The well-known border biennials called Canterbury Bells (*Campanula Medium*) have come into fashion of late years for conservatory decoration, and give a great variety of colour—purple, blue of various shades, pink, and pure white. Sown in April, pricked out, and finally, when large enough, transplanted to a shady border, they may be lifted in September and potted. They are strong-growing plants, somewhat coarse perhaps, and only suitable where there is ample space, but they are undoubtedly handsome. Much more elegant is the autumn-flowering Chimney Campanula (*C. pyramidalis*), and its tall spires of pale

blue or pure white are always admired. This species is almost better suited for house than for border decoration, though it is quite hardy from a certain flimsiness of texture in the flowers, which are easily spoilt by weather.

Two beautiful species of *Pentstemon* not very often met with may be added to the biennial list. *P. Cobæa* is a Texan plant which blooms naturally late in autumn and has long shining deep green leaves and spikes of bell-shaped lilac or white flowers. Being very viscid they attract insects to such a degree out of doors that their beauty is sometimes marred by the small victims which cannot get free from the sticky trap, but they make very fine pot plants. *P. murrayanus* is quite distinct from the last, having glaucous leaves and bright scarlet tubular flowers, but there are garden varieties distinguished, as *grandiflora* of different shades of rose and violet. Both these species, which are quite different to the well-known border *Pentstemons*, do better sown in early autumn and protected during the winter either in a cold frame or greenhouse, as they are somewhat tender, but are well worth growing by those who do not begrudge time and trouble.

Annuals and biennials are rather undeservedly out of favour, because for their short duration they demand a considerable amount of labour and care, especially when intended for indoor purposes; but by growing in most cases single plants to allow full development and by cutting off all dead flowers before they have time to form seed the blooming season can be much prolonged. Some may be found to suit all seasons, and, as if to make up for a short life, most of them are lavish of their fine flowers. As a garden experiment, which probably has never been attempted, it would be interesting to prove what could be done in the way of cold greenhouse decoration by the use of annuals and biennials alone. The garden lad's definition of gardening, instilled no doubt by a past-master of the craft, was "A-doing of things at the right time." The adage may be applied with double force in the case of this handsome but short-lived section of plants.

K. L. D.

### ROSE FELLEBERG (NOISETTE)

THIS beautiful and free-flowering Rose is one of the features of the Rose garden at Kew, at



A FREE GROUPING OF NOISETTE ROSE FELLEBERG IN THE ROSE DELL AT KEW.



least it was a week ago. It is almost as bright as the yards of Crimson Rambler, and almost perpetual, maintaining a display until the autumn. It is an excellent Rose for making a group of, as suggested in the illustration. In pruning, the shoots must be left a good length, for the following season side shoots will appear, which will produce flowers the following year.

## TREES AND SHRUBS.

### HARDY HYBRID RHODODENDRONS.

(Continued from page 63.)

#### SMIRNOWI GROUP.

A GROUP entirely new, and it is doubtful whether any of the hybrids are in cultivation except in the places where they have been raised. The species is a native of the Caucasus and flowered for the first time in England at Kew in 1893. It is a dwarf, compact species, increasing in width at a much greater rate than it grows in height. The leaves are large, deep green, and covered on the under-side with a dense, white felt. The flowers are  $2\frac{1}{2}$  inches to 3 inches across arranged in medium sized shapely trusses, and are rosy-lilac in colour. The dwarf, dense habit of the plant with the large trusses of flowers led to its being used as a parent with a view to producing a race of dwarf, compact plants bearing large trusses of flowers which would be useful for places where large fast growing varieties would be useless. Both at Kew and in the nursery of Mr. George Paul numerous hybrids have been raised. The first raised at Kew was by crossing the species with the scarlet flowered garden hybrid Johnsoni in 1893. It flowered when four years old, and was of dwarf habit with rosy red flowers. Of numerous other hybrids raised since that time three which were raised from crosses made in May, 1896, and which flowered in May of the present year, are so far the best. One of these was raised by crossing with the variety *purpureum splendens*; this has good sized trusses of purplish flowers. Another claims *Fortunei* as its male parent; it has fragrant flowers of large size with five or six petals, pink in colour, arranged in shapely trusses. In the third case *Kewense* was selected as the male, and this is the prettiest of the three. The flowers are on long stalks, semi-pendulous, large with prettily fringed petals, fragrant, rose-coloured, and prettily marked with dark spots in the throat. Although the beauty of the flowers is somewhat marred by the half pendulous habit the plant has much to recommend it.

A hybrid named *Cunninghami*, which originated by crossing *R. cinnamomeum* and *maximum*, may be seen in the Rhododendron dell at Kew, and also in the Himalayan house. It is a very fine hybrid, but does not flower freely. It is of exceptionally good habit and a strong grower, with very handsome, dark green leaves, which are thickly covered on the underside with a brownish felt. The flowers are pure white, large, and borne in immense trusses. In one of the famous Cornish gardens a very fine plant exists which is said to flower very freely.

Between the evergreen and deciduous

sections of *Rhododendron* a number of hybrids have been raised, which in some places are erroneously called *Azaleodendron*. Three of the most attractive of these are *R. azaleoides*, *R. Smithii* var. *aureum*, and *R. roseum odoratum*. The first mentioned grows about  $3\frac{1}{2}$  feet high, making a dense bush with small evergreen leaves, and during June a profusion of fragrant, white, lilac-tinted flowers. It is a hybrid between *R. viscosum* and *R. maximum*, and has been known under the names of hybridum, fragrans, and odoratum. *R. Smithii* var. *aureum* is an old plant; it is said to have been raised by Mr. Smith, a nurseryman of Norbiton, by crossing a variety of *R. caucasicum* with a yellow form of *R. sinense*, and he is said to have exhibited it at Chiswick in 1841. It is a dwarf loose habited plant, bearing fairly large leaves and compact trusses of yellow flowers. A glaucous-leaved form is in cultivation, but the flowers are not so richly coloured as are those of the plain leaved one. *Roseum odoratum* is a fragrant hybrid with reddish flowers. It grows 4 feet high, and was raised by crossing a white deciduous variety with a red evergreen one. All three plants are hardy and well worthy of attention.

With the arrival of so many new species from Western China, of which *rubiginosum*, *racemosum*, and *yunnanense* are good examples, we may expect in the near future to have several other distinct races of garden Rhododendrons.

W. DALLIMORE.

### THE PLANTING OF VINES.

(Continued from page 60.)

#### TREATMENT AFTER PLANTING.

HAVING now given details as to the preparation of the Vine border, the plants best suitable for placing therein, and the proper method of doing this, I will endeavour to explain the method of treatment most likely to bring the preliminary labours to a successful issue. I think the simplest and most satisfactory way to do this will be to commence with the newly-planted Vine and show how this should be cultivated during its first year

of growth, and then point out the somewhat modified treatment required afterwards. Supposing the Vines to have been planted in late July or early August, or, in fact, any time during the summer, the object of the cultivator is to first enable them to complete their growth quickly as vigorously as possible, and then to aid the thorough ripening of this growth so far as lies in his power.

For a week or two after planting it will be advisable—and, perhaps, necessary—to shade the Vines during the hottest part of the day, otherwise the leaves will droop and probably be scorched by the sun, a circumstance that would considerably retard their establishment in the new soil. It is essential that the leaves of the young Vine be treated with the greatest care, for upon the health and vigour of the foliage the activity of the roots depends, and, unless the latter are in an active state, there is not much likelihood of the Vine becoming quickly established. Shade then for a time after planting is invariably necessary. The temperature and condition of the house should be such as is most suited to the encouragement of generous and healthy growth. On bright mornings a little air can be admitted early—that is to say, before eight o'clock—and then as the solar heat increases the amount of air given must also be augmented. All the ventilation that is essential may be given before midday unless the Vines have been planted exceptionally early in the season, and even then it is not often that it will be found necessary to admit air in the afternoon. Nothing helps the young Vines to grow and make root better than the practice of closing the vinery early in the afternoon—say, about three o'clock—and earlier as the summer advances and the sun's heat declines. Supposing that the sun is about that time beginning to shine indirectly upon the vinery, if the amount of air were not reduced it is astonishing how quickly the temperature of the house would decrease, with the result that the Vines in a very short space of time would have been subjected to two extremes of temperature, a condition that could not fail to be injurious. From a heat of perhaps  $87^{\circ}$  Fahr. the atmosphere of the vinery would fall  $10^{\circ}$  or more so soon as the direct rays of the sun had left it, and the air that before was beneficial and necessary to the maintenance of a proper temperature would now be but the source of draughts. If, however, the vinery is closed up altogether just before the sun



VIEW OF THE OLD WALL ON SOUTH-EAST SIDE OF THE GARDEN, SHOWING ENTRANCE GATES FOR STUDENTS.



ceases to strike directly upon it (the air having been partially reduced earlier in the afternoon, so that the change of temperature may not be too sudden), and the Vines themselves, together with the walls, floor, and pathways, are well syringed at the time, a warm, moist atmosphere (most congenial to growth) ensues, and the heat thus preserved—caged up as it were—helps very considerably to maintain an equable temperature in the house throughout the night, and does away with to a great extent the need of heat from the hot-water pipes—a saving so far as expense is concerned, and it is also more suitable to the healthy growth of the Vines that a natural warmth should be taken advantage of in preference to the use of artificial heat.

The heat that proceeds from the hot-water pipes is dry and arid, and has a tendency to create an atmosphere that is conducive to the increase of an insect pest known as red spider, and one that sometimes does a very great deal of harm to the foliage. Occasionally, indeed, if the attacks of this insect are very severe, the Vine becomes so enfeebled that it is not able to properly mature its crop of fruit. It is during the night time that artificial heat is most required, and it is then also that there is the least moisture in the atmosphere. I believe that many of the attacks of red spider are traceable to the careless regulation of the night temperature of the vinery.

We see that a dry and hot atmosphere is suitable to the increase of this pest, and that during the night, when most artificial heat is required, it is the least possible to give atmospheric moisture. It is most essential, therefore, to do all that is possible to minimise the necessity of much fire-heat, and this point is best achieved by judiciously closing the vinery more or less early during the day, according to the weather. A simple, yet very good, precaution to take against the increase of red spider, or to prevent its appearance at all, is to thoroughly damp the vinery, walls, floors, and Vines as late at night as one conveniently can. It is a work that does not occupy many minutes when one has a syringe and a can of water, and its beneficial results are undoubted. In some of our large fruit-growing establishments this is made a duty. Every night the man who happens to be left in charge of the houses is expected to damp the Vines and their surroundings as his last duty. Although but a simple precaution, it may be the means of preventing much subsequent annoyance.

A. P. H.

(To be continued.)

## THE PHYSIC GARDEN AT CHELSEA.

ON Friday, the 25th ult., the historic Physic Garden at Chelsea was, by Earl Cadogan, again reopened to students after having been closed for several years during its reorganisation and transference to a new governing body. The garden was founded about 1673, when the Society of Apothecaries ordered that a spot should be chosen upon which to erect a barge house for the ornamental barge the society—like other City companies—then possessed for the use of its members in the water pageants so common at this date. A portion of the ground then obtained was set apart for growing herbs of reputed medicinal qualities.

The ground was first leased from Lord Cheyne, but the undertaking appears from the first to have been a considerable burden on the corporate funds of the society. With a view of lessening this burden the society approached Dr. Sloane (afterwards Sir Hans), who had purchased the lease of the manor of



PHYSIC GARDEN AT CHELSEA: VIEW OF LABORATORIES AND LECTURE ROOM.

Chelsea from Lord Cheyne in 1712. The result of this interview was that in 1722 he granted them the land for ever in consideration of a yearly rent of £5. As the quaint old indenture goes on to say: "That the said garden may for ever be continued as a physic garden, and for the better encouraging the said society and enabling the said society to support the charge thereof for the manifestation of the power, wisdom, and glory of God in the works of Creation, and that their apprentices and others may distinguish good and useful plants from those that bear resemblance to them and yet are hurtful, and other the like good purposes."

It is very fitting that the Society of Apothecaries should have placed a marble statue of Sir Hans Sloane in the prominent position it now occupies in the centre of the garden, and no account of the garden would be complete without a short reference to this remarkable man.

Sir Hans Sloane, Bart., was born in Ireland, of Scotch parentage, in 1660, and from his sixteenth to nineteenth year was very delicate in health. When he got strong enough he came to London, and devoted himself to the study of medicine and the collateral sciences. His fondness for botany brought him into contact with Ray, the famous naturalist.

In 1683 he went to Paris, and there attended the lectures on botany by Tournefort, afterwards going for a year to Montpellier, having been furnished by Tournefort with introductions to all the leading men of science in that city. Whilst at Montpellier he collected a large number of plants in the vicinity of the city, many of which found their way to Ray, and are described by him in his "Historia Plantarum."

In 1685 he was elected a Fellow of the Royal Society, and in 1687 a Fellow of the Royal College of Physicians of London. In this same year he was appointed physician to the Duke of Albemarle, who was going out as Governor to Jamaica. The duke, however, unfortunately died shortly after his arrival,

and Dr. Sloane was obliged to hasten his return to Europe, but it is characteristic of the man that during his fifteen months' stay at Jamaica he made a collection of upwards of 800 species of plants.

In 1693 he was elected secretary of the Royal Society, and in 1712 one of its vice-presidents, and in 1727 he succeeded the illustrious Sir Isaac Newton in the presidency. Sir Hans died in 1753, in the ninety-third year of his age, leaving two daughters to inherit his vast wealth, which was eventually united to the noble families of Stanley and Cadogan.

Sir Hans had directed that at his death his museum should be offered to the nation for £20,000, which was stated to be a quarter its real value. The Treasury of the day showed its wisdom in accepting the offer, which helped largely to found the British Museum. His cabinets contained 200 volumes of dried plants, 30,000 specimens of other objects of natural history, besides a library of 50,000 volumes, and some 3,566 manuscripts.

During the visit of Linnæus, the great Swedish botanist, to this country in 1736 he reports in his diary his visit to Chelsea, and says: "Miller permitted me to collect many plants in the garden and gave me several dried specimens collected in South America." This event is interesting as showing the high estimation in which the Chelsea garden was held by scientific men of foreign countries as well as our own, and its character may be further appreciated by the fact that only two botanic gardens in England were mentioned by Linnæus as having been visited by him, namely, the Oxford one, then under the care of Professor Dillenius, and that at Chelsea under the care of Rand and Miller, to both of whom, together with Hudson, also a demonstrator at Chelsea, Linnæus often refers in the most commendatory terms.

Philip Miller, who will always be remembered as the father of horticultural literature, presided over the fortunes of the garden for nearly fifty years. His best known work, "The Gardeners' Dictionary," went through no less



than eight editions, and was translated into the Dutch, French, and German languages. Miller was buried in the churchyard of the old parish church at Chelsea, and fifty years after his death a monument was erected to his memory by the members of the Linnæan and Royal Horticultural Societies of London.

No apology need be asked for briefly mentioning the names of a few eminent men who have presided over the rise and progress of the garden, names which, it is safe to say, will always be memorable in the annals of horticultural and botanical science: James Sherard, brother of the founder of the famous Sherardian Professorship of Botany at Oxford; Isaac Rand, after whom the genus *Randia* is named; William Hudson, author of "Flora Anglica"; William Curtis, author of the splendid but ill-fated "Flora Londinensis" and founder of the *Botanical Magazine*, now edited by Sir Joseph Dalton Hooker; William Forsyth, immortalised in the genus *Forsythia*; Robert Fortune, who went to China and sent home so many beautiful plants for our gardens; Dr. Lindley, the most famous botanist of his day; and Thomas Moore, author of numerous works on Ferns and general horticulture.

After presiding over the fortunes of the garden for two and a quarter centuries, the Apothecaries Society found themselves unable to support it any longer out of their corporate funds, and in 1893 they applied to the Charity Commissioners with the intention of being relieved of their trusteeship.

It was urged on their behalf that the garden was unsuitable for a botanic garden, and that it was impossible to grow anything satisfactorily owing to the degeneration of the soil and the deleterious effects of the London atmosphere.

How far this was correct the photograph of *Veratrum viride*—the plant from which the hellebore powder of commerce is obtained—recently taken in the garden will speak for itself.

In 1897 the question as to the suitability of the garden for botanical purposes was gone into by a treasury committee, consisting of Sir Henry Longley, Sir W. T. Thiselton-Dyer, and Mr. Spring Rice. This committee reported that they were sure that if properly administered the garden was capable of being usefully employed for botanical science at the present time, and that there was a large number of students of botany to whom the garden would be an immense advantage, both as a place to see growing plants and from which specimens could be obtained.

In the scheme sanctioned by the Charity Commissioners the trustees of the London parochial charities are the sole trustees of the garden, the management being vested in a committee of seventeen members, nine of which are appointed by the London parochial charities, one each by the Treasury, the Lord President of the Council, the Technical Education Board of the London County Council, the Royal Society, the Pharmaceutical Society, the

University of London, the Society of Apothecaries, and the Royal College of Physicians, in turns.

A new two-storied building has been erected (see illustration) for use as a lecture room, a laboratory for research work, with several smaller rooms for private use, and leading out of the laboratory is a greenhouse for use for physiological experiments. Adjoining this building is the house of the curator of the garden. A new range of greenhouses has also been erected, which it is hoped to stock with plants of special botanical interest from a teaching point of view. A large collection of Liverworts has already been brought together, and many

many cases duplicate plants, so as to be able to provide for the needs of all elementary students. While the alterations have been in progress specimens have been regularly supplied to the Royal College of Science, several Polytechnic classes, the School Board for London day classes, and several private colleges.

W. HALES, Curator.

## TENDER SHRUBS AND TREES IN THE SOUTH-WEST.

(Continued from page 54.)

**ASTER (OLEARIA) ARGOPHYLLUS.**—Australia. The Silver Musk Tree, with Musk-scented leaves and dull red flowers in summer. Three gardens. Height, 12 feet.

**Athrotaxis laevis.**—Tasmania. A tender conifer. A fine example, 20 feet in height, fruited profusely at Menabilly two years ago.

**Banksia grandis.**—Australia. Evergreen shrub bearing yellow flowers in dense spikes. *B. serrata*, red flowers; and *B. littoralis*. All at Tresco. *B. quercifolia*, handsome leaves with white reverse. Abbotsbury. Banksias were at one time in request as greenhouse plants.

**Bauera rubioides.**—New South Wales. A pretty little evergreen shrub, not unlike a Heath, but more branching, bearing solitary pink saucer-shaped flowers half an inch across, each petal striped with white down the centre.

**Benthamia (Cornus) fragifera.**—Nepaul. A strikingly handsome evergreen tree, first introduced into England in 1825, when seed was sown at Heligan, Cornwall, and where there are now specimens some 60 feet in height. It is largely represented throughout Cornwall, being used in some places as a woodland tree. In June, when the leafage is hidden by the widespread platter-like flowers of pale yellow, its effect is very beautiful, especially when thrown up by a background of green foliage. In the autumn the fruits, from which it takes its name of Strawberry Tree, some an inch or more in diameter, become bright crimson.

**Boronia.**—Australia. These are almost universally treated as greenhouse plants, but succeed in the open in the south-west. At Tregothnan, at the end of March, two bushes of *B. megastigma*, planted in front of a wall, the larger of which was about 3 feet in height, were coming into profuse bloom, and already scented the air with the first of their brown-yellow lined drooping cups. *B. heterophylla*, with its purple-red flowers, was also expanding blooms, and *B. Drummondii*, *B. elatior*, and *B. polygalifolia* were also growing in the same garden.

**Brachyglottis repanda.**—New Zealand. A handsome tree with leaves nearly a foot in length, and numerous minute flower heads. Tresco.

**Buddleia Colvillei.**—Sikkim. The finest of the race, with pendulous racemes nearly a foot in length, of crimson Pentstemon-like flowers, paler round the centre, an inch across. Leaves large and dark green, 6 inches or more in length. Several gardens.

**Callistemon salignus.**—Australia. There are two forms of this Bottle-brush, one bearing pale yellow flowers and the other crimson. Others are *C. lanceolatus*, carmine-flowered, and *C. speciosus*, scarlet-flowered. These grow well as bushes, specimens of the first-named being sometimes 10 feet



STATUE OF SIR HANS SLOANE, BT., SHOWING RHEUM OFFICINALE ON THE RIGHT.

other plants of an interesting nature. The entrance for students is in Swan Walk, and on the old wall skirting this side of the garden are a few very interesting subjects, among others an old plant of the Pomegranate and a very large plant of *Styrax officinale*, now rarely seen in cultivation. It yields a fragrant gum resin called storax, formerly largely used by perfumers, and medicinally as a stimulating expectorant.

The whole of the beds in the garden have been rearranged, and many more new ones made. The work of restocking the beds with suitable plants has gone on apace, and now over 100 natural orders are represented. The common orders which are most used have in



in height and as much in diameter. There is much confusion between this genus and *Metrosideros*, *C. lanceolata* being almost universally sold as *Metrosideros floribunda*. *Callistemons* are to be found in many gardens.

*Candollea tetrandra*.—Australia. An evergreen bush bearing clear yellow cup-shaped flowers, somewhat resembling Sun Roses, but of firmer texture. Tresco.

*Camellia reticulata*.—This is hardy, but rarely flowers satisfactorily in the open, except in the south-west, where it is grown both against walls and as a bush plant. It is by far the finest of the Camellias, bearing lovely pink semi-double flowers, 6 inches in diameter, with bright yellow spreading stamens.

*Cantua buxifolia*.—Peru. An evergreen shrub, bearing in corymbs at the end of the branches pale red trumpet flowers, something after the style of *Fuchsia corymbiflora*. Tresco.

*Carpenteria californica*.

—A well-known evergreen shrub in the south-west, bearing fragrant, white, yellow-centred flowers. In some gardens it suffers from browning of the leaves; but this is apparently not the effect of cold winds or frost, as often the most exposed plants are the least affected, and the most sheltered are in the worst plight. The finest specimen known to me, about 8 feet high and as much through, is growing near Teignmouth. It may be considered fairly hardy since it has been grown in the open in Scotland.

*Caryopteris Mastacanthus*.—Chili. A most valuable much-branched evergreen shrub, growing to a height of 4 feet or more, bearing lavender-blue clusters of flowers in October. There is also a white form. The type is common.

*Cassinia leptophylla*.—New Zealand. A small evergreen shrub, bearing white flower heads. Tregothnan.

*Ceanothus*.—California and Mexico. Many species and varieties are grown both as bushes, in which form they soon make small trees, and trained against walls. Of the early-flowering varieties *C. veitchianus* is the brightest coloured, and of the autumn-blooming *Aureus* section *Gloire de Versailles* is the favourite. Common in most gardens.

*Citharexylum quadrangulare*.—West Indies. The Fiddle-wood. Bears white, fragrant flowers. There is a fine specimen at Abbotsbury, Dorset.

*Citrus trifoliata* (*Egla sepiaria*).—Japan. This fiercely-spined *Citrus* is hardy, but rarely flowers and fruits in the north. In the south-west it flowers freely, and one specimen I know of fruits almost annually. It is 7 feet in height, and last year carried over thirty fruits.

*Clerodendron trichotomum*.—Japan. A deciduous shrub, also hardy, but flowering best in the south-west. The finest specimen I know is over 15 feet in height and as much through at Greenway on the Dart.

*Clethra arborea*.—Madeira. The Lily of the Valley Tree. Evergreen. It bears panicles of white, bell-shaped flowers in the summer, at which time it is quite a feature at Tresco. There are good bushes, the largest about 7 feet in height, at Trewidden, near Penzance.

*Corokia buddleioides*.—New Zealand. A tall-

growing evergreen shrub, with leaves 2 inches to 6 inches in length. *C. cotoneaster* is a spreading shrub with small leaves. Both species bear yellow, sweet-scented flowers. The first I saw at Ludgvan

Rectory, Cornwall, the second at Bishop's Teignton, South Devon.

*Correa*.—Australia. Greenhouse evergreen shrubs which do well at Tresco and also in some gardens on the mainland. *C. cardinalis* is the most brilliant, but *C. ventricosa* is almost as highly coloured. I have seen the two named as well as *C. alba*, *C. bicolor*, *C. carnea*, *C. glauca*, *C. magnifica*, and *C. virens* in good health and flower on the mainland.

S. W. FITZHERBERT.

(To be continued.)

## THE MOUNTAIN PRIMULAS.

(Continued from page 30.)

### MARSH-LOVING SPECIES.

*P. LUTEOLA* (Rupr.). From the Eastern Caucasus.—It is rather near *P. auricula*, from which it is distinguished by the long pedicels of the flowers, which are yellow instead of purple, and by its being much larger in all dimensions.

*P. Olga* (Regel). From the mountains of Turkestan, between 7,000 feet and 12,000 feet.—This may be called an oriental form of *P. longiflora*, for it comes very near this alpine species, though it is distinguished from it by its leaves being smooth and shining on both sides, and by the bracts of the involucre being continued downward towards the base.

It is of the same easy culture as *P. longifolia*, and flowers in April and May.

*P. Parryi* (A. Gray).

Figured in *Bot. Mag.* t. 6185.

From the Rocky Mountains of Colorado, Arizona and Nevada in the alpine regions.—Leaves upright, ovate-elliptical, obtuse or nearly acute, sessile, or contracted on a thick petiole; flowers intensely bright crimson, large, eight to twelve at the top of the stalk 3 inches to 5 inches long. It blooms in May and June. It flowers badly at Geneva, but admirably at La

Linnaea, where for many years it has been one of the handsomest of the genus. It must have a moist, spongy soil, well drained and in full sun, and be frequently watered.

*P. Poissoni* (Franch.). From the mountains of Yunnan in Southern China.—This species is something like *P. japonica*, but is distinguished from it by its glaucous leathery leaves, widely dilated, enveloping at the base; the violet-rose flowers are large and are disposed in whorls, but much less regularly than in *japonica*. It is nearly hardy at Geneva, but for safety we winter it in a cold frame; it is quite easy to grow and yields flowers in abundance.

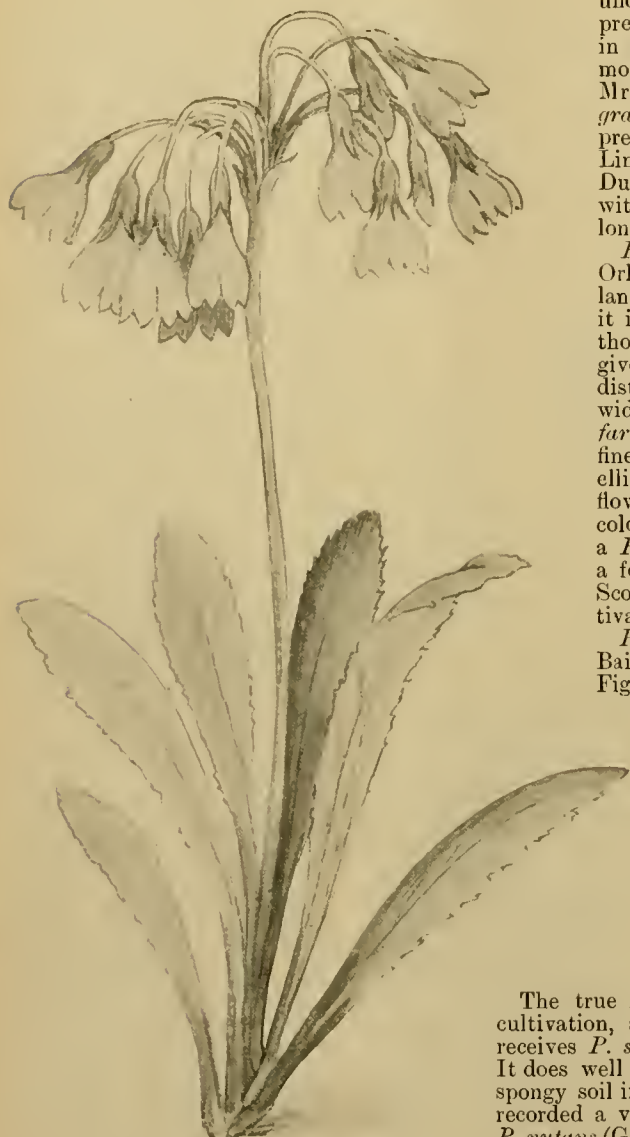
*P. reticulata* (Wall.). From the Eastern and Central Himalayas.—The true *P. reticulata* does not appear to be in cultivation, for whenever I have had it from nurserymen who offer it in their catalogues I have always received *sikkimensis*. I observe that "Nicholson's Dictionary" gives these two species as very near each other (at any rate it is so in the French edition that I have). I am also aware that Dewar notes *P. reticulata* having been shown at the Primula conference\*, which is quite possible, as the plant may exist, unknown to me, in English gardens. *P. reticulata*, however, differs clearly from *P. sikkimensis*.

\* "Journal of the Royal Horticultural Society," Vol. XII., No. 2, page 288.



PRIMULA POISSONI (LIFE SIZE).





PRIMULA SIKKIMENSIS (LIFE SIZE).

Pax does not include them in the same section, and even puts them rather far apart. Moreover, the description given by Pastor Duby in his "Monographie des Prumulacées"† does not correspond to the characters of *P. sikkimensis*, which, however, he then did not yet know. Pax places *reticulata* in the *cordifolia* section, characterised by distinctly stalked leaves which are heart-shaped at the base, while *sikkimensis* is in the *Nivales* section, whose leaves narrow gradually into the winged petiole, as for example in *P. acaulis*. Further, while *P. sikkimensis* has the flower drooping and on long pedicels, *reticulata* carries them upright, the involucre is more or less mealy, and formed of pointed leaflets, the calyx is bell-shaped and toothed only half the length of the tube. As I have never had *P. reticulata* I am unable to say whether it is in cultivation or not, but it probably is for it is unlikely that Mr. Dewar, who followed the Primula conference very closely, should not have known it.

*P. rosea* (Royle). *Bot. Mag.* t. 6437. From the Western Himalayas.—A beautiful and well known species, introduced from Kashmir in 1879, with brownish leaves and many pure rose-coloured flowers, very brilliant in the

unopened bud. It is one of the most precious of our rock plants, flowering in March and April. It requires moisture, porous soil, and half sun. Mr. Leichtlin has raised a variety *grandiflora*: he was good enough to present it to the garden at La Linnaea, where it succeeds admirably. Duby has also recorded a var. *elegans* with the flower smaller, the tube longer and the lobes narrower.

*P. scotica* (Hook). From the Orkney Islands to the north of Scotland.—Very near *P. farinosa* to which it is attached in "Index Kewensis," though Pax in his "Monographie" gives it specific rank. It is clearly distinguished from *P. farinosa* by the widely rounded teeth of the calyx—in *farinosa* they are triangular—by the fine and regular toothing of the large elliptical leaf, by the very short flower-stem, and the dark purple colour of the corolla. There is also a *P. scotica* of Blyth, which is simply a form of *farinosa*, and is near the Scotch plant, but is very rare in cultivation.

*P. sibirica* (Jacq.). From the Altai, Baikal, and eastern regions of Siberia. Figured in *Bot. Mag.* t. 3167 and t. 3445.—It is rather near *involutrata*, with flat, smooth, obovate, entire leaves, slightly undulated at the edge, long stalked, highly glabrous; the flower-stem is 3 inches to 4 inches high. Flowers three to five, rose-coloured, supported by an involucre, whose bracts are the same length as the pedicels. It flowers in April and May.

The true *P. sibirica* is extremely rare in cultivation, and in its place one generally receives *P. stricta* or even common *farinosa*. It does well in sphagnum in moist, spongy soil in half sun. Pallas has recorded a variety *rotundifolia* syn. *P. nutans* (Georgi).

*P. sibirica* var. *kashmiriana* (Hook.) has longer flowers and rounded leaves, and Trantwetter has published a variety *brevicalyx*, with the calyx twice as short as the tube of the corolla.

*P. sikkimensis* (Hook.). From the Himalayas, between 12,000 feet and 15,000 feet, and from Yunnan.—An extremely characteristic plant; leaves long, rough, wrinkled, obovate-elliptical, crenate-dentate, narrowing gradually to the wide, winged petiole; flower-stem lightly powdered, 18 inches to 2 feet high, bearing at the top a bouquet of drooping flowers of a bright citron-yellow colour, often fifty to sixty at a time, forming a beautiful umbel. This plant requires a moist porous soil in half sun or shade. It is excellent for the side of a stream or pond.

*P. stricta* (Horn.) syn. *P. hornemanniana* (Lehm.), *P. glabrescens* (Fr.), *Androsace stricta* (Hartm.). Northern and arctic Europe and Iceland. Figured in Hornem. Fl. Danica 8, t. 1385.—A small species near *farinosa*, from which it is distinguished by its very short flower-stalk, by the undersides of its leaves

not being mealy, by the much blunted, almost rounded teeth of the calyx, and by the lobes of the pale pink corolla being very slightly indented. We grow it easily at Geneva in moist spongy soil in full sun. It is the daintiest species in this section.

*P. Warei* (Stein). See *P. farinosa* var. *Warei*. Geneva. H. CORREVON.

(To be continued.)

## NOTES ON HARDY PLANTS

### DAPHNE CNEORUM.

**D**APHNE CNEORUM, with its neat trailing habit and profusion of rosy lilac flowers, should be grown wherever the soil appears favourable. It rarely exceeds 6 inches to 10 inches in height, and half a dozen plants make a most interesting group for the rockery. It thrives best in a moist peaty soil, and invariably fails where the soil is stiff and dry. It is well worth a place on the rockery on account of its sweetly fragrant flowers alone. *D. rupestris*, the pretty rock Daphne, is a neat, diminutive shrub, forming dense tufts 2 inches or 3 inches high, and covered with a mass of rosy pink blooms. It requires a stony, peaty soil, and should be planted where there is no fear of its being overcrowded, as so often happens with these small plants. *Daphne blagayana*, though a very beautiful species, with white fragrant flowers, is one of the most tantalising in the genus. I have seen robust



PRIMULA ROSEA (LIFE SIZE).

† "Prodromus, De Candolle," Vol. VIII., page 41.



healthy specimens die off in a few days. On the other hand, where everything suits, this *Daphne* may be grown without any trouble. It seems to require a loamy, well-drained soil. K.

### MICHAUXIA TCHIHATCHEFFII AT EDINBURGH.

As one who has to acknowledge want of success in endeavouring to flower this *Michauxia*, which is burdened with such a troublesome specific name, I was delighted to observe a good plant of it coming into flower in front of the range in the Edinburgh Botanic Gardens in the middle of July. With me it comes up annually, makes some growth, and then goes to rest until another year has well come in. At Edinburgh it seems to grow far more vigorously, and it was a pleasure to see the healthy appearance it presented with its tall stems thickly clothed with flowers just ready to open. So far as I can learn it does not usually flower freely, and I have known a good many who are no more fortunate than myself in blooming it. It is an Asia Minor species, and seems to be, so far as its white blooms go, a better plant than *M. campanuloides*, whose singular-looking flowers are not too often seen either. Seeds were obtainable a year or two ago, if not now, and as it is of perennial habit, it has this additional advantage over *M. campanuloides* that it lives from year to year. S. ARNOTT.

### SINGLE PINK GRACE.

This beautiful Pink is one of a pleasing set which comprises a number of single varieties of *D. plumarius*. Less striking, perhaps, in its appearance when seen a little distance off than such dark-zoned varieties as *D. Beauty*, it is still one of great attraction from its large, beautifully fringed, fragrant white flowers, whose beauty is heightened by the rose zone which encircles the base of the petals. One of its merits is its erect habit of growth and its hold appearance when raised above the eye. I have a good plant on the top of a double wall, and it there presents a most pleasing appearance with its numerous flowers upheld on stout stems. It is one of the best of its class here, and one is glad to be able to recommend it to those interested in these fragrant flowers.

Carsethorn, N.B. S. ARNOTT.

### SYMPHYANDRA PENDULA.

We have some plants of this pretty Bell-flower on a dry rockery, and just coming into bloom. I think if the plant is grown thus, only about 1 foot high, it is the very reverse of weedy which, I have been told, is the reason why it is not grown by many. The foliage is very plentiful, but so are the flowers, which are 1½ inches or 2 inches long by 1 inch wide at the mouth of the bell, and of a soft creamy white. It may be short lived, but is easily raised from seed, and is really a perennial. J. WOOD.

### THE DOUBLE DWARF SWEET WILLIAM (DIANTHUS BARBATUS MAGNIFICUS PLENUS).

Of all the Sweet Williams I do not think there can be one neater in habit and brighter in colour than this. Not more than 6 inches high, it has been making a brave show for weeks, and looks as if it will continue for a few more. I consider it a better thing than its taller relations, as there always seems to be plenty of growth left for another season when it has finished flowering. The colour is a rich ruby, surpassing that of *Dianthus Napoleon III.* This is a grand plant to follow on the earlier Pinks and for border edging.

Hardy Plant Club, Kirkstall. J. WOOD.

## THE ROSE GARDEN.

### ROSES IN NORTH-EASTERN SCOTLAND.

SCOTLAND'S climate generally is not an ideal one for Rose growing, but with a little trouble many sorts can be tolerably well done, the chief means of assuring success being a proper selection of the varieties to be grown. For instance, it would be quite useless for us northerners to have anything to do with that beautiful Rose *Comtesse de Nadaillac* for the open ground. Again, many of the dark Hybrid Perpetuals stain and lose their colour terribly in this climate; why I do not know, as one would have thought that in this respect we might have had the advantage over our ancient foes, the Sassenachs, but it is not so, and I cannot even do much with Charles Lefebvre. Also some very full Roses, for instance *Marchioness of Londonderry*, cannot

*Grace Darling* (H.T.).—Creamy pink, about the earliest in this class to flower.

*Grand Duc A. de Luxembourg*.—A beautiful and most distinct Hybrid Tea, the inside of the petals being white and the outside deep rose; free, hardy, and most decorative.

*Kaiserin Augusta Victoria* (H.T.).—Very good indeed. Creamy white. A good grower and hardy; nearly every flower comes good. Buds get a little spoiled in very wet weather.

*La France* (H.T.).—Usually good.

*La France de '89* (H.T.).—A good hardy Rose and a good grower.

*Mme. Isaac Pereire* (Bourbon).—A useful, strong growing Rose.

*Margaret Dickson*.—The best white H.P. in the north. Almost every flower comes good, but the plant is very liable to mildew late in the season.

*Marquise Litta* (H.T.).—Not a strong grower, but free flowering and hardy; very well shaped rosy red flowers.



DAPHNE CNEORUM ON A SUNNY BANK IN THE BOTANIC GARDENS, EDINBURGH.

often be induced to open; or, if they do so, they take so long about it that the tips of all the petals get badly stained and weather-worn, and the flower is worthless. Doubtless there are many other Roses that can be well done north of the Grampians, but the following lists contain what I consider the best from experience in my own garden. I may add that I have included none that I have not had under observation for at least four years, although a good few of the newer Roses promise very well, especially of the Hybrid Tea class.

#### HYBRID PERPETUALS AND HYBRID TEAS.

*Captain Hayward* (H.P.).—The best bright red Rose for the north; good sturdy grower, free flowering, and very hardy.

*Caroline Testout* (H.T.).—Large pink flowers, free and hardy.

*General Jacqueminot* (H.P.).—Very bright in colour. This Rose will grow quite a long way up a wall.

*Mrs. John Laing* (H.P.).—Good. Rosy pink.

*Mrs. Sharman Crawford* (H.P.).—Good. Bright pink.

*Mrs. W. J. Grant* (H.T.).—The best of all Roses in the north, of splendid colour and foliage; a fair grower, very free flowering; every flower coming good and not opening too quickly, which, I fancy, would be its chief fault in the South. It is, in addition, an excellent autumnal.

*Souvenir de la Malmaison* (Bourbon).—An old Rose, excellent for its autumnal bloom.

*Ulrich Brunner* (H.P.).—A good bright red Rose, strong grower and very hardy.

#### TEA ROSES.

Very few of these are really satisfactory, and it is really best to rely chiefly on the Hybrid Teas. However, the following are the best I have tried in respect to hardiness:—

*G. Nabonnand*.—Rosy cream, very free and quite hardy; a good grower, quite one of the best Teas as a garden Rose in the North.



*Anna Olivier*.—Creamy, buff centre, the reverse of the outer petals reddish.

*Hon. Edith Gifford*.—Almost pure white here.

*Mme. Lambert*.—About the best Tea of its colour for the North.

*Maman Cochet*.—A very good grower and about the hardiest of the Teas; sometimes the blooms do not open well, but when they do they are splendid.

*Marie d'Orleans*.—A strong, hardy plant. The flower is rather of the Gloire de Dijon shape, but of a rosy colour. A very good garden Rose.

*Marie Van Houtte*.—Grows well, and is fairly hardy.

*Papa Gontier*.—Good grower, and fairly hardy. A beautiful bud.

*Safrano*.—Good apricot-coloured buds and hardy. I have it growing 8 feet or 9 feet up a wall facing south-east, in which position it blooms very early.

*Sombreuil*.—Makes a good bush, very free-flowering, and most useful for cutting. Almost a climber, and very hardy.

*Souvenir de S. A. Prince*.—The best white Tea here. A good grower, and fairly hardy.

*Souvenir d'un Ami*.—Of much the same habit and growth as the last-named, but with pink flowers. Good.

Of Roses belonging to other than the above classes, the Austrian Copper and Austrian Yellow should be grown with any of the Penzance Sweet Briars (Meg Merrilies, Lady Penzance, Amy Robsart, and Green Mantle are a good quartette), and the Scotch Roses, especially the yellow. These three classes should be allowed to grow much as they please, when they will make large bushes, the knife only being used after flowering to cut away any old or exhausted wood. The Scotch Roses make a capital low garden hedge, and are very sweet-scented. Moss Roses I cannot do well. The best is the common Moss.

All the Rugosas and their hybrids are very hardy, and are useful shrubby Roses. Then the Ayrshire and evergreen Roses, that grow anywhere and anyhow, and are never sick or sorry, must not be forgotten. Of these the best are Bennett's Seedling, splendens (Ayrshire), and Félicité Perpetué (evergreen). Of other climbing Roses the following are the best with me:—

*Gloire de Dijon*.

*Mme. Alfred Carrière*.—The best white climber, and very hardy. Good either on wall or trellis.

*Mme. Berard*.—A better-shaped Gloire de Dijon; not so liable to get bare at the bottom, but not quite so free-flowering. Good.

*Pink Rover*.—Very useful, strong growing plant, good as a bush, and will climb quite a long way. Very hardy.

*Reine Marie Henriette*.—A strong climber, with bright red flowers, which, however, fade off rather an objectionable colour. A useful Rose.

*Reine Olga de Wurtemberg*.—The best red climber for an arch, most floriferous, strong and hardy.

*Waltham Climber I*.—A good crimson Rose, free and hardy. Best here as a bush.

*Crimson Rambler*.—Very hardy, good on an arch or trellis, but useless on a wall; requires high feeding to show its true character; in fact, it can hardly be over fed.

*Polyantha simplex*.—Very free flowering, makes a splendid bush if allowed to grow as it likes, only cutting away any old wood after flowering.

Then one cannot omit some of the China Roses. The common China is the hardiest,

and Fellenberg (classed usually as a Noisette) is very useful, especially in late autumn.

Then last and least (in respect of stature) the dwarf Polyanthas must be included. The two best here are Anne Marie de Montravel (white) and Gloire des Polyantha (pink). These never fail. They start flowering early, and are about the last to give in; they are very hardy and make splendid beds. N. B.

P.S.—Some of the old, so-called, Hybrid Chinas are very useful in the North, especially Charles Lawson. Two other summer Roses that should be grown are Celestial and Maiden's Blush, both classed as "Alba" Roses. Macrantha and Paul's Single White should also be included; they make good bushes and the latter is very useful for cutting. N. B.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### BULBS.

VARIOUS kinds will soon be coming to hand from the growers. It suits some growers to send them out in bulk late, which is not a satisfactory way when they are required to bloom at different periods of the year. Growers should be urged to send on each variety as soon as they are ready. For a general collection of bulbs the bulb catalogue is the best guide. Space will only permit me to mention the very early flowering sorts. A very early and free flowering Narcissus is Single Trumpet Major, and another grand large single is Yule Tide. Early Double Golden blooms at the same time. I have had these Daffodils in flower during November and December with but very little forcing. I believe these bulbs were grown in France, and ripen earlier than Dutch grown. I obtained them through a noted Southgate nurseryman. Trumpet Major is considered by many to be a shy bloomer, but given an open porous soil, with plenty of broken crocks or charcoal mixed in the compost and liberal drainage, and not hard forced with fire-heat, which means failure, I know of no better variety for early flowering. There is nothing more welcome or charming for conservatory or room decoration than these beautiful fresh-coloured Daffodils, and coming into flower without hard forcing they are a great boon to gardeners. These bulbs are cheap, and if obtained through a reliable source are very certain. A serious mistake is ordering bulbs through an unreliable source. Remember that within the bulb the coming flower is already stored. Polyanthus varieties, such as the early Paper White and Double Roman, are particularly precious for early forcing. Roman Hyacinths, too, are indispensable.

#### RETARDED LILY OF THE VALLEY

can be had in bloom any time during the summer and autumn months. Pot up on arrival, place in a cold frame, and expose to full light, where they will open their flowers and develop their foliage in about two or three weeks. Do not upon any account give them bottom heat.

Spireas and Azalea mollis will flower in about five weeks from time of starting. Lilliums will flower in about ten to twelve weeks.

#### SEASONABLE PROPAGATING.

*Fuchsias*.—Cuttings of the young growing shoots should be taken and placed in small pots in a light sandy soil. If possible, place them in a half-spent hot-bed. These plants, if kept going all through the winter in a light and warm position, will make strong flowering plants next year. Cuttings of Heliotropes, Coleus, Lantanas, and the like may also be struck.

*Zonal Pelargoniums*.—For next season's flowering these should be inserted singly in small pots. Choose strong growth and press the soil firmly round the cutting. They do not like a close moist atmosphere or much shade; indeed, we strike

them in a cold frame fully exposed to the sun. Winter-flowering Pelargoniums that are well rooted in their flowering pots should have weak manure and soot water given to them twice a week. Pick out all premature flower trusses and pinch the strong shoots until the end of the month. From that time growth should be free. Turn the plants round to the sun occasionally to regulate the growth.

JOHN FLEMING.

Wexham Park Gardens, Slough.

## THE FRUIT GARDEN.

#### APRICOTS.

THE crops of these are more satisfactory this year than are those of some other hardy fruits, but owing to the dry weather we have found it expedient to thoroughly water and mulch the borders. The fruit is now approaching maturity, and will require to be protected by hexagon netting or some similar material from wasps and birds. The colour will be improved if fruits are fully exposed to the sun. Once it is gathered the trees should be thoroughly cleansed by the aid of a garden engine, and the young shoots that require it fastened to the wall, at the same time closely stop sub-lateral growths and carefully remove suckers, which are at times freely produced.

#### STRAWBERRY PLANTING.

In a recent calendar instructions were given for preparing land for this fruit, and a list of good varieties was given. Where the plants have to be purchased there should be no further delay in giving orders for them, and those established in small pots should be preferred. Home-raised plants should be severed from their parents after they have become well rooted, placed for a few days before being planted in a shaded position, and kept watered and daily syringed. It is advisable to choose showery weather for the operation, and a suitable distance is 2½ feet between the rows, and the plants 2 feet apart in the rows. Where space is limited, however, they may be more closely placed, especially in the case of compact growers; at the same time, a greater distance may be advantageously afforded such strong growers as Royal Sovereign, for instance, when they are planted for the purpose of supplying runners for layering. When planting be careful that the balls of soil are moist, and make them perfectly firm; should dry weather prevail see that the plants are adequately supplied with water and damped overhead each evening, and in any case keep them free from runners.

#### APPLES.

Although early summer pruning of the Apple is not advisable, owing to it producing a profusion of sappy growths, the summer pruning of the bush, espalier, and similar trees that have their growth restricted, should now be completed. If it is convenient to do the work upon the piecemeal principle, a sudden check to the tree's energies, which a wholesale removal of young shoots occasions, will be avoided. In pruning it is essential that the operator knows the difference between ordinary wood growths and fruit-bearing spurs, i.e., short sturdy growths which ultimately terminate with a fruit bud. Some varieties of Apples, such, for example, as Cornish Gilliflower, produce a great portion of their fruit upon this principle, and the removal of such growths would consequently cause failure. Young trees should have sufficient terminal and other shoots to properly furnish them, carefully selected and retained. I have previously advised the thinning of fruit where it is necessary, but in our case, except with a few varieties, it has not been called for this season. Any fruits that drop, the result of the codlin moth maggot, should be gathered up and destroyed before the grub escapes. Where aphid has been troublesome the trees and their fruit will be benefited by being thoroughly washed by the garden engine, and where (as is the case here) the rainfall has been deficient, copious supplies of water and liquid manure will be beneficial, while the utility of mulching with short litter, especially for newly-planted trees, should not be overlooked.



THE FLOWER GARDEN.

At the present time there is no plant in the hardy herbaceous border more effective than the

DELPHINIUM,

whether it be the annual or perennial, though the tall hybrids of the latter are especially so. The great difference in their height, they range from 1 foot to 12 feet high, and their variety of colours, from pure white to scarlet, and every shade of blue, from bright lavender to deep indigo, make them splendid subjects for using in many ways, either in groups or masses of distinct colours or as single border plants in combination with other plants. The effects of these combinations are sometimes very beautiful, and now that the Delphinium is in flower it is a good time to observe and think of fresh effects with them for next summer. Their cultivation is very simple, as they are so perfectly hardy and thrive in the most ordinary soil, though of course they do best in rich deep soil. Seeds sown now or a little earlier of the perennial sorts will supply flowering plants for next year, but if there are certain colours it is desired to retain distinct the best plan is to propagate by dividing the stock of the particular plant in the spring just as it is starting into growth. It is advisable to lift the perennial plants every three or four years and trench the ground and manure it thoroughly before replanting. This is best done in spring. Like a good many other things if they seed the pods should be removed to encourage flowers for the late autumn. The annual varieties should always be sown where intended to flower, and thinned out when the seedlings are large enough. If sown in boxes and afterwards planted out they are not nearly so successful.

Delphinium nudicaule is a most desirable dwarf compact little perennial, about 12 inches to 15 inches in height, with light scarlet flowers, and is very easily raised from seed. On a light dry border it comes into flower very early and lasts for a long time; it is most effective if grown in small groups. D. cardinale is another scarlet flowering one, but is much larger growing. D. formosum and its varieties Belladonna and lilaceum are very effective, and are worth growing in any border. Of the hybrids sulphureum, with long spikes of beautiful clear yellow flowers and attaining 3 feet or more in height, is very pretty, while Sutton's Queen of the Blues, which I have already referred to in a previous note, should be in every collection because of its charming colour. H. A. PETTIGREW.

Castle Gardens, St. Fagans.

KITCHEN GARDEN.

LATE PEAS.

EVERY endeavour should be made to prolong the season as much as possible, and to attain this end the growths should be well thinned, the surface mulched with manure, copious supplies of water given during spells of hot, dry weather, and the haulm well syringed during the evening to promote a healthy growth. When suitable varieties are grown, Green Peas may be had quite till the end of October, and often in favourable weather in many parts of the country well into November.

COLEWORKS.

Good breadths of these should be planted on heavily manured and deeply dug ground immediately they are ready, allowing a distance of 1 foot all ways. Every spare piece of ground should be planted, as they are much appreciated during the winter months. Well water in at the time of planting, also two or three times after to give them a good start should the weather be dry. The ground should be kept constantly moved with the hoe to encourage a free growth.

RUNNER BEANS.

These in many places, owing to the late spring, are in a very backward condition. Keep the roots well supplied with clear and farmyard manure water, and syringe the growths freely. This will materially assist the blooms to properly set. Make a good sowing of French Beans on a south border,



AZALEA TIME IN THE NURSERY OF MESSRS. H. LANE AND SON, GREAT-BERKHAMSTED.

when protection can be afforded them should it be necessary. This sowing will give a good supply of pods late in the season.

MUSHROOM BEDS

which were made up in cool places in the open will now be yielding good returns. The covering of long litter should be renewed with fresh material occasionally, and where the bed has been in bearing for some time apply a good soaking of farmyard manure water. Syringe the beds morning and evening. Make up beds in the Mushroom house at intervals for autumn use, keeping the structure as cool as possible.

CUCUMBERS

in pots and frames should be kept well thinned. Apply a good mulching of rotten manure and turfy loam. Syringe and shut up early in the afternoon, but admit air early in the morning. Ridge Cucumbers will now be about at their best, and be bearing freely. Give manure water frequently, and keep the plants well syringed in the afternoon. Relieve the plants by cutting the fruit as fast as it becomes fit, as these are much superior in flavour when used before becoming too large. Seed of a good free-bearing variety should now be sown in small pots for planting in the Cucumber houses and giving a supply during autumn. Encourage a short, stout-jointed growth before planting, when they will continue to bear for a much longer period.

TURNIPS.

Choose, if possible, showery weather for sowing good breadths of these. Give a good surface dressing of soot and burnt garden refuse, make firm, and sow in shallow drills in dry weather. Thoroughly water the drills before sowing, rake in immediately after, and sprinkle over the surface a little short grass from the mowing machines. Several sowings should yet be made, as frequently the later ones prove the most serviceable. Snowball and Prizetaker are two of the best for sowing at this season. The latter is a green top variety, but of excellent quality and appearance, and very hardy. Thin out the earlier sowings; but this ought to be done twice, leaving them the first time just as thick again as they will have to remain. Dust with soot and wood ashes and hoe repeatedly.

CABBAGE.

Make one sowing at once and another quite at the end of the month. The premature running to seed in spring is generally caused through

sowing too early and not making a suitable selection of varieties. I know of no kind to equal Ellam's Early for the first sowing, or indeed for any other at this season. Flower of Spring is also reliable but larger. E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

NURSERY GARDENS.

MESSRS. H. LANE & SON, BERKHAMSTED.

BY reason of the introduction of that sterling Apple Lane's Prince Albert, if for no other, the name of Lane is widely known throughout the world of horticulture, for it is seldom now that one visits a fruit garden where this valuable variety does not find a cherished place. But the visitor to the home of this splendid Apple will find not only that largely and well represented, but there are many other items of sufficient interest to attract his attention. He will, indeed, find that it is a very extensive nursery, containing a comprehensive collection of hardy and indoor plants thriving luxuriantly. No less than

150 ACRES OF LAND

around Berkhamsted are planted with ornamental trees and shrubs, so some idea of the quantity and variety of the stock of these can be obtained. Messrs. Lane's various nurseries and orchards practically encircle the town of Berkhamsted, although the most extensive of them is that known as the Balshaw Nursery. It is here that the photograph from which the accompanying illustration was made was taken. This gives one some idea of the extent to which just one class of plants is grown by Messrs. Lane, viz., Azaleas and Rhododendrons; indeed, Azalea time in the Berkhamsted nurseries is quite an event in the neighbourhood. There are many acres devoted to these plants, and they seem to delight in the soil of the district. In early summer, as far as one can see in several directions, are sheets of colour. It would serve no useful purpose to enumerate the leading varieties of

RHODODENDRONS AND AZALEAS,

for they are continually mentioned in these columns by one writer or another. Particularly fine are the standard Rhododendrons in Messrs.



Lane's nurseries, plants sturdy and strong, well developed, and flowering grandly. The standard Rhododendron is not met with nearly so often as its merits entitle it to be, for a good plant is stately and handsome, and, if the variety is well chosen, will add much to the early summer beauty of any garden. *Everestianum*, *Lady Helen Cathcart*, *Hendersoni*, and *Purity* are just a few varieties that make particularly good standards. Of Messrs. Lane's *Azaleas* the illustration will convey a far better idea than can a pen description.

#### HARDY HEATHS

that of recent years have much increased in popularity are largely grown in the Balshaw nurseries, and allied plants, such as *Andromeda*, *Kalmia*, *Menziesia*, and *Pernettya* also are extensively cultivated. One of the principal features of the Berkhamsted nurseries is

#### THE COLLECTION OF CONIFERS.

One sees them in all sizes, from recently-rooted plantlets to specimens quite suitable for isolated planting on lawns or in other conspicuous positions, and of all ages between these extremes. Sturdy and hardy, frequently transplanted, they are the picture of healthy plants, and give promise of full satisfaction when permanently planted. Of *Cupressus lawsoniana*, one of the commonest yet most satisfactory of evergreens, Messrs. Lane grow several pretty varieties, of which they specially recommend the following: *L. erecta viridis*, bright green foliage, symmetrical habit; *L. lutea* and *L. nana*, distinct and compact-growing varieties; and *L. stricta*, of upright growth. Of Pines we have rarely seen a better lot (*P. austriaca* particularly), and the collection of *Retinosporas* contains

#### MANY BEAUTIFUL THINGS,

of which *R. plumosa aurea*, a lovely golden sort that retains its colour well throughout the year, is perhaps the best. All the most useful genera of Coniferae are represented both extensively and well, but we need not mention more of them individually. The quantities of

#### EVERGREEN TREES AND SHRUBS

are immense, especially of such sought for things as *Aucuba*, *Holly*, *Box*, *Laurel*, *Berberis*, &c. Of *Hollies* we remarked some grand old plants, wonderful bushes, and the *Aucubas*, too, deserve special mention. Messrs. Lane state that they find the following to be the most useful and distinct forms: *femina vera*, compact, green leaved, berry bearing; *longifolia*, with narrow leaves, showing the berries to better advantage; *mascula*, green-leaved, producing the pollen to fertilise the others; and, of course, *Aucuba japonica variegata*. The Berkhamsted

#### VARIEGATED BOX

is also worthy of special note, both with reference to its good colouring and the quantity of plants grown. Of *Yews*, Messrs. Lane in common with other firms have hardly sufficient to meet the enormous demand there is for this indispensable evergreen, although the ground covered with

#### ENGLISH AND IRISH YEWS

and the varieties of them is of considerable extent. One of the prettiest *Yews* and one that every collection of trees should comprise is *elegantissima* (bushy and of a silvery tint), and of this Messrs. Lane have an unusually large stock. We have not the space to enter into detail with regard to the deciduous trees and shrubs, the weeping trees, climbers, forest trees, &c., that are largely grown in the various nurseries of this firm, but we must not omit reference to the

#### FRUIT TREES,

for one does not often meet with acres of them that can show so uniform and vigorous a growth as do the Apples, Pears, Plums, &c., on Messrs. Lane's fruit farm. Plants one year old were making, in fact had already made, surprising growth, especially so the standard Plums and Apples. Needless to say trees of the best varieties of hardy fruit are grown, and Apple Lane's Prince Albert, already incidentally mentioned, is of course not the least numerously represented.

The Berkhamsted nurseries have long been famous for the culture of

#### POT VINES,

and after seeing the really splendid examples now growing in the Vineries here one recognises that the reputation is still maintained, and one no longer wonders why or how it has been obtained. Numerous varieties of Grapes not generally met with are grown by Messrs. Lane, as well as the better known ones; for instance, *Dr. Hogg*, *Ferdinand de Lesseps*, *Grizzly Frontignan*, the *Strawberry Grape*, &c.

#### FIG CULTURE IN POTS

forms also a feature of the indoor department of this nursery, and of this fruit we noticed a good collection of varieties, *Black Ischia*, *Negro Largo*, *Brown Turkey*, *White Ischia*, *Brunswick*, &c.

Of the collection of *Roses*, both out of doors and in pots under glass, we will not now attempt to deal, and there are other features that might well lay claim to the right of mention. Some at least of the more noteworthy items in an old-established and thoroughly representative nursery have been mentioned.

## SOCIETIES.

#### NATIONAL CARNATION AND PICOTEE SOCIETY.

(Continued from page 71.)

##### SECOND DIVISION.

F. Wellesley, Esq., Woking (gardener, Mr. J. Gilbert), was first for twelve bizarre and flake Carnations, with good bright blooms; and Messrs. Pemberton and Son, Walsall, second.

F. Wellesley, Esq., was also first for twelve self Carnations, showing excellent blooms of *Cecilia*, Mrs. William Mostyn, *Bomba*, &c.; Messrs. Thompson and Co., Birmingham, were a good second; and Messrs. Phillips and Taylor, Bracknell, Berks, third.

F. Wellesley, Esq., was also first for twelve fancy Carnations, with splendid blooms. Messrs. Thompson and Co. were second; and Messrs. Phillips and Taylor third.

The first prize for twelve white ground Picotees was awarded to F. Wellesley, Esq., for a choice exhibit; Messrs. W. Pemberton were second; and Messrs. Thompson third.

F. Wellesley, Esq., was first for twelve yellow ground Picotees with splendid flowers of *H. Falkland*, *Lady St. Oswald*, *Lady Bristol*, &c.; B. Nash, Esq., Old Woking, was second; and Messrs. Thompson and Co. third.

F. Wellesley, Esq., was again first for six self Carnations, showing the variety *Benbow*; Messrs. Thompson and Co., Birmingham, were second with Mrs. Eric Hambro; and Messrs. Phillips and Taylor third.

F. Wellesley, Esq., was first for six yellows or buff ground fancy Carnations, with excellent blooms of *Argosy*; and Messrs. Thompson and Co., Birmingham, were second, with *Galileo*; and Messrs. Phillips and Taylor third.

The first prize for six fancy Carnations was won by Messrs. Phillips and Taylor, Bracknell, with good *Artemis*; F. Wellesley, Esq., being second.

For six yellow ground Picotees, F. Wellesley, Esq., was first with excellent flowers of *Lady St. Oswald*; E. Nash, Esq., Old Woking, being second; and Messrs. Thompson and Co. third.

For six varieties of selfs and fancies, F. Wellesley, Esq., was first; Messrs. Thompson and Co. second; and Messrs. Phillips and Taylor third.

##### THIRD DIVISION.

For six blooms bizarre and flakes, J. J. Keen, Esq., Southampton, was first; J. Fairlie, Esq., Acton, W., second; and A. Greenfield, Esq., Sutton, third.

W. Spencer, Esq., won for six self blooms; R. C. Cartwright, Esq., was second; and E. Charrington, Esq., Chislehurst, third.

For six fancy Carnations, W. Spencer, Esq., was first; E. Charrington, Esq., second; and R. C. Cartwright, Esq., third, all showing beautiful flowers.

For six white ground Picotees, W. Spencer, Esq., Bexley Villa, Windsor, was first; R. C. Cartwright, Esq., second; and J. Fairlie, Esq., third.

For six yellow round Picotees W. Spencer, Esq., was first; E. Charrington, Esq., second; and R. C. Cartwright, Esq., third.

For a vase of Carnations, E. J. Wootton, Esq. (gardener, Mr. G. Neal), Winchester, was first with a handsome exhibit of a yellow variety; W. Spencer, Esq., Windsor, was second with rose-coloured flowers; and T. W. Enston, Esq., Chadwell Heath, Essex, was third.

#### THE HORTICULTURAL CLUB.

The annual excursion of this club took place on Thursday, the 24th ult., when about forty members and their friends spent a delightful day on the Upper Thames. Among those present were Messrs. H. Veitch, Kay, Asbee, Monro, Sweet, Watkins, Thomas, Barr, Shoults, Goldring, May, and Drury, most of whom were accompanied by their wives or lady relatives. Meeting at Paddington at 11.15, the party arrived at Cookham in time for an early lunch at the Crown Hotel, prior to a trip on a steam launch. A journey down the river was made as far as Temple Mill, beyond Marlow. On this occasion the excursion committee abandoned the

usual programme of a series of visits to celebrated gardens, owing partly to the inevitable fatigue attendant thereupon, and partly to a desire to vary its experience. However, as demonstrated on this occasion, little or nothing was lost thereby in horticultural instruction and interest, since the beautiful glimpses obtained on the way of the innumerable riverside gardens and picturesque dwellings nestling therein, to say nothing of the unparalleled woodland effects of the Cliveden Heights, were a liberal education in themselves. Every moment new vistas of enchanting river scenery, enhanced to the utmost by ideal weather conditions of lovely cloud-effects and a balmy atmosphere, opened out. Under no other conditions possibly could particular arboreal effects of contrast and harmony be studied so well, while every here and there new hints were afforded of what could be done in the garden. As an instance of this, a long, low hedge composed entirely of the *Crimson Rambler Rose* evoked general admiration, especially as the flowers were at their best. Close thereto a house draped with *Ampelopsis Veitchii*, varied with *Aristolochia Siphon*, presented one of the prettiest effects of contrasting foliage which we have seen for a long time. Returning to the Crown at Cookham about six o'clock, a capital dinner was served, and the landlord was heartily thanked for the valuable aid he had afforded Mr. Harry Veitch in perfecting the programme. After the dinner a humorous essay on the "Tater Diseases," ostensibly from the pen of William Grubbs, "ed gardner, Dibble All, Beds, was read by Mr. Drury.

Mr. Harry Veitch was warmly thanked for the capital arrangements made and carried out without a hitch, great regret being expressed at the unavoidable absence of Mr. E. T. Cook, the secretary, owing to a family bereavement the day previous, and the old secretary and founder of the club, the Rev. H. H. Dombain, was appropriately cheered in his retirement by the despatch of a telegraphic greeting for "Auld Lang Syne."

#### WOOLTON.

The annual show was held in the grounds of Woolton Wood, by the kind permission of Holbrook Gaskell, Esq., J.P. The open classes of the show are few, but are always noted for their excellence, and this year the exhibits fully maintained their reputation.

For the circular group Mr. Jones (gardener to S. Sanday, Esq.), held the premier position with choice material tastefully arranged; Mr. J. Stoney (gardener to F. H. Gossate, Esq.), was second; and Mr. T. Carling (gardener to Mrs. Cope), third. For six distinct varieties of fruit, Mr. J. Clark led with well-finished Grapes, Peaches, Melons, &c.; Messrs. J. Stoney and T. Carling were the other prize takers.

For herbaceous cut flowers Mr. Jones led with bunches of *Liliums*, *Alstromerias*, &c.; Mr. J. Stoney followed. For six kinds of vegetables Mr. J. Stoney won with well-finished examples; Mr. Jones second. Sweet Peas, twelve varieties, brought a fine competition with good flowers throughout. The winners were Messrs. Jones, D. McKenzie (gardener to E. Darlington, Esq.), and T. Carling.

Mr. R. Todd (gardener to Holbrook Gaskell, Esq.), contributed a very good lot of Orchids. Mr. T. Carling staged Tomatoes in pots carrying heavy crops of fruit; Troughton's *Prolific* was much admired with upwards of forty fruits on a bunch.

#### WALLASEY.

The first summer exhibition, under the auspices of the Wallacey Amateur Gardeners' Association, was held in the charming grounds of the Central Park, Liscard, on July 23, and proved an unqualified success. For the circular group of plants Mrs. D'Arcy won with a well-arranged lot, in which baskets of *Gloxinias*, *Begonias*, *Palms*, &c., were effective. Mr. H. Ogden followed with a good lot. For four stove or greenhouse plants, distinct, the same exhibitor won, and also for three exotic Ferns, for one specimen plant in bloom, two *Palms*, and three *Petunias*; a very good record.

For twelve bunches of herbaceous cut flowers, for twelve and for six *Roses*, Dr. Bell won in each class, the herbaceous flowers being of high merit. For four dishes of fruit, J. D. Tyson, Esq. (gardener, Mr. R. Gregson) won with a good collection, the same exhibitor securing chief honours for two bunches of black and two bunches of white Grapes.

Certificates of merit were awarded to Mr. H. Middlehurst for a well-arranged collection of Sweet Peas in the leading varieties; Messrs. A. Dickson and Sons, Newtownards, for a fine lot of *Roses*; Mr. C. Morgan for a group of plants, *Lilium auratum* being very good; Mr. J. Ennion for a table of stove and greenhouse plants. Mr. John Finnigan and his committee are to be congratulated upon their initial exhibition, which should become highly popular.

#### CARDIFF HORTICULTURAL SOCIETY.

This society held its fourteenth annual show on the 23rd and 24th ult., in delightful weather, in the Sophia Gardens, Cardiff, which is an ideal place for such a purpose. The show was generally considered the best that the society has held, and the classes were remarkably well filled. The non-competitive exhibits were also numerous, and did much to help to make the show a success. The groups of plants, table decorations, *Roses*, bouquets, fruits, and vegetables were excellent. Mr. H. Gillett (the secretary) and his committee must be congratulated upon the splendid results attained.

#### CUT FLOWERS.—OPEN CLASSES.

In the class for twelve *Roses*, distinct, three blooms of each, the first position amongst four exhibitors was secured by Mr. Crossling, Penarth Nurseries, with good blooms of *Suzanne Marie Rodocanachi*, Mrs. R. G. Sharman Crawford, *Marquess of Londonderry*, *Bessie Brown*, *Helen Keller*, &c.; the King's Acre Nursery Company, Hereford, were second with Mrs. Grant, Reynolds Hole, Baron Rothschild, Mildred Grant, &c. For twelve Teas or *Noisettes*, three blooms of each, Mr. S. Treseder, Cardiff, was first with good blooms of *The Bride*, *Muriel Graham*, *Medea*, *Mainan Cochet*,



Souvenir de S. A. Prince, Souvenir d'un Ami, &c.; Messrs. T. Townsend and Son, Worcester, were a good second. For twenty-four blooms, distinct, the King's Acre Company were first with Suzanne Marie de Rodocanachi, Mme. Eugene Verdier, La France de '83, Lady Sheffield, Duchess of Portland, Mildred Grant, Xavier Olibon, Count Rainbaud, &c.; Mr. S. Treseder was second, his best blooms being Alfred Colomb, Suzanne Marie Rodocanachi, Earl of Dufferin, Pride of Waltham, &c. Five exhibitors entered in this class. For twelve blooms, any one variety other than Teas or Noisettes, there were many competitors, Messrs. Townsend and Son taking the lead with a fine stand of Mrs. John Lalug. For twelve blooms of Teas or Noisettes, Messrs. Townsend and Sons were first with Mrs. E. Mawley.

For a collection of Roses, staged with their foliage in a space of 6 feet by 3 feet, Mr. Crossling was first, and secured with the first prize the Royal Horticultural Society's silver Flora medal; second, Messrs. Townsend and Son; third, Mr. S. Treseder.

For a collection of Carnations and Picotees, arranged with their foliage and buds in a space 6 feet by 3 feet, Messrs. W. Tuplin and Son, Newton Abbot, were first; second, Mr. Crossling. For Carnations and Picotees, six blooms of each, distinct, Messrs. Blackmoor and Langdon, Bath, were first with good blooms of Willie Tyler, Amelia, Cecilia, Gracie, Mrs. Wall, &c., closely followed by Mr. Pike, of Llanishen, Mrs. B. Smith, Devonshire, being third.

In the class for Sweet Peas, eighteen varieties, arranged in vases, there was much competition, the first position being taken by Messrs. I. House and Son, Westbury-on-Trym, Bristol, with, as their leading varieties, coccinea, Jenny Gordon, Lady Grisel Hamilton, Miss Willmott, Lily Countess of Lathom, Lord Rosebery, Lady M. Ormiston Gore, Hon. Mrs. Kenyon, Gracie Greenwood, &c.; Mrs. Jenner, Wenocoe Castle, was a creditable second; and Mr. Byass, Bridgend, third.

#### PLANTS.—OPEN CLASSES.

For four stove and greenhouse plants in bloom, Mr. Cypher, Royal Exotic Nursery, Cheltenham, was first with excellent specimens; Mr. Lockyer, gardener to C. Hanbury, Esq., Pontypool Park, was a good second; Mr. Carpenter, gardener to W. J. Buckley, Esq., Llanelli, being placed third. For four ornamental foliage plants, Mr. Cypher was again first; second, Mr. Carpenter. For twelve dinner table plants, Mr. Bastin, gardener to Sir A. Henderson, Buscot Park, Faringdon, was first; second, Captain Matures, Llandaff; third, Mr. Carpenter.

#### GROUPS.

These attracted much notice. For one in the open class, covering a space of 150 square feet, Mr. Cypher arranged a charming group in his usual tasteful manner; Mr. Carpenter was second. In the class open only to amateurs and gentlemen's gardeners (space of 50 square feet), there were four good groups staged, Captain Matures being first, followed by Mr. Carpenter and Mr. W. N. Lawes in the order named. For miscellaneous plants (space of 25 square feet), Mr. C. Waldron was first; second, Mr. Lawes; third, Mr. Carpenter. For a group of Begonias, Mr. W. Green, Pen-y-lan, was first; second, Captain Matures; third, Mrs. Gunn, Cardiff.

#### TABLE DECORATIONS.

For a table 8 feet by 4 feet, laid for eight persons with dessert, &c., amongst five exhibitors Miss Jenkins, Cardiff, was deservedly placed first, using flowers of Gladiolus Mary Anderson and Sweet Peas with Adiantum Ferns and grasses; Mrs. Waldron was second, and Mrs. Brooks third. For a table 4 feet by 3½ feet, Miss Ada Stanley was a good first amongst six competitors with a beautiful arrangement of Sweet Peas, Maiden-hair Fern, and grasses; second, Mrs. Jenner; third, Mrs. Jenkins.

#### BOUQUETS, &c.—OPEN.

These, as is always the case at Cardiff, were shown in perfect condition, Mr. W. Treseder securing first place with a bouquet of Roses and a bouquet for the hand. He was also first for a lady's spray, for a single basket of flowers, and for two baskets of flowers. Mr. Baggessen was first for a bridal bouquet.

#### VEGETABLES AND FRUIT.

These, together with plants, were splendidly staged by gardeners and cottagers, and there was a spirited contest amongst the Cardiff and county societies (affiliated district societies) for a challenge trophy (silver bowl, presented by Messrs. D. Duncan and Sons, *South Wales Daily News*), given for a combined group of cut flowers and vegetables covering a space of 18 feet 6 inches. The coveted prize was this year won by the Margam district, whose strong point was vegetables. The St. Fagans district were a good second, and the Paterson Super-Ely district third.

#### NON-COMPETITIVE EXHIBITS.

These were shown in great variety, and made leading features. Silver-gilt medals were awarded to Mr. A. Perry, Winchmore Hill, for Water Lilies; to Mr. John Russell, Richmond Nurseries, for stove and greenhouse plants; and to Mr. Eids, Regent Street, London, for miniature Japanese trees in pots. Silver medals were awarded to Mr. Eckford, Wem, for Sweet Peas; to the King's Acre Nursery Company, for Roses; to Messrs. Dickinsons, Chester, for miscellaneous plants; to Messrs. Wallace, Colchester, for herbaceous plants, &c.; and to Messrs. Blackmoor and Langdon, for Carnations and Begonias.

#### HUYTON AND ROBY.

If not the best this exhibition must at least rank as equal to any former display, the plants generally, although not large, were fresh, and gave evidence of good culture; and it is to be regretted that the space is so restricted that a larger marquee cannot be used; under the present conditions the plants cannot be seen to advantage. One other point in connexion with the plant classes that should be enforced by the committee, namely, the naming of exhibits; the exhibitor should remember that shows are not organised for

his benefit alone, and it is most desirable that the visitor should, if he wishes, be able to learn the name of the plants shown.

For the 9 feet circular group of plants A. McKenzie Smith, Esq. (gardener, Mr. W. Lyon) was first, and Thos. Heushaw, Esq. (gardener, Mr. J. George) second. Four stove or greenhouse plants, the same exhibitor won. For three stove or greenhouse Ferns: First, Mrs. Harding (gardener, Mr. J. B. Hardcastle), included being two fine specimen Tree Ferns. For two Palms or Cycads, Mr. J. B. Hardcastle won with good plants. For three Fuschias and the single specimen, Mr. E. Bridge was first with profusely flowered plants. For four Gloxinias, Mr. W. Lyon won with good varieties, whilst he held his own for the single plant; this class was remarkable throughout for well-finished plants, and altogether made an imposing display.

The Roses were only moderate, Mr. J. Burrows winning for twelve and six blooms, and for six (three dark and three light). For six varieties stove or greenhouse cut flowers, J. Beecham, Esq. (gardener, Mr. W. Oldham) had the best, and for the best twelve bunches of herbaceous cut flowers Mr. J. George scored with a capital lot.

For four distinct varieties of fruit, Mr. W. Oldham won with fine Black Hamburg Grapes, Royal George Peaches, Melons, &c.; Mr. T. Eaton was second. The same exhibitor won for two bunches of black Grapes with Black Hamburg. For two bunches white with large bunches of Buckland Sweetwater. For three dishes of hardy fruit Mr. T. Eaton was first.

Mr. H. Middlehurst staged an excellent collection of Sweet Peas, and Messrs. Caudwell showed hardy flowers, Roses and Sweet Peas. Mr. H. Middlehurst ably accomplished the secretarial duties.

#### THE NATIONAL CHRYSANTHEMUM SOCIETY.

THE annual outing of the above society took place on the 23rd ult., and by the kindness of Sir Weetman Dickinson Pearson, Bart., M.P., some 110 members and their friends visited Paddockhurst, Worth. The party travelled by the Brighton Railway to Three Bridges Station, from whence they were conveyed to Paddockhurst along some of the pleasantest leafy highways it would be possible to find in the county of Sussex. On arriving at their destination a short walk was enjoyed and then dinner was served in a spacious waggon shed, which Mr. A. B. Wadds had gaily decorated, and which was much preferable to a close tent. The chair was taken by Mr. Thomas Bevan, the chairman of the executive committee, who was supported by Mr. J. H. Witty, vice-chairman, Mr. J. W. Moorman, treasurer, the Mayor of West Ham, and several of the councillors of that borough. After dinner the usual loyal toasts were given, and then the healths of Sir W. D. and Lady Pearson, with hearty thanks for permission to visit the grounds of Paddockhurst. Mr. Wadds, the gardener at Paddockhurst, was also toasted, he having rendered most valuable assistance in making the outing a success. Dinner over, a visit was made to the glass structures and also the kitchen and flower gardens, notice being taken of the excellent condition of everything under culture and the admirable care observed on every hand, and great praise was bestowed upon the terrace gardens with its beds of various types of Pelargoniums mixed with Violas. A goodly number of the visitors were, by the permission of Lady Pearson, shown through the mansion, while others betook themselves to the cricket ground near the mansion, where a match was played between the Paddockhurst Club and a scratch eleven made up among the visitors, in which the Mayor of West Ham, playing for the latter, distinguished himself in a most creditable manner, making the highest score for the visitors' side. After the match tea was served, and at half-past seven a return was made to the station, and on departure hearty cheers were given for Sir Weetman and Lady Pearson and also for Mr. Wadds. London was reached shortly before ten o'clock, and the fact that the weather was gloriously fine added greatly to the enjoyment of one of the pleasantest outings the society has undertaken.

#### A SWEET PEA INSPECTION AT KELVEDON.

ON the invitation of Messrs. Hurst and Son, 152, Houndsditch, a large party, which included personal friends of Mr. N. Sherwood, representatives of the leading London and provincial seed houses, and the chairman, officers, and committee of the National Sweet Pea Society, journeyed from Liverpool Street by the Great Eastern Railway to Kelvedon to inspect the large and representative collection of Sweet Peas on the seed trial grounds of the firm at Feering, near Kelvedon. Reaching Kelvedon at noon, the party was conveyed in brakes to Feering, where they were met by Mr. N. Sherwood, in greatly improved health, and his sons, Mr. William and Mr. Edward Sherwood, and a number of personal friends. Luncheon was served in a cool and commodious barn, Mr. N. Sherwood presiding, supported by his sons, Dr. Campbell (his son-in-law), Mr. Wm. Marshall (the chairman of the floral committee of the Royal Horticultural Society), Dr. Salter, Messrs. James Scruby, W. A. Bilney, J. Smith, J. W. Moss, Whitpain Nutting, W. A. Garraway, &c. Justice having been done to an admirably-served repast, the usual loyal and complimentary toasts were duly honoured, and in rising to respond to the toast of his health, Mr. N.

Sherwood received a most hearty and sympathetic reception, as also did his son, Mr. Edward Sherwood, who had organised the outing. The trial of Sweet Peas was then inspected. The collection, which included all the recent novelties, consisted of nearly 500 samples, all in full bloom, and there was also a representative collection of the varieties of the Cupid type, carrying excellent heads of bloom, and showing little or nothing of that tendency to drop their buds prematurely, which has been noticed in previous years. A portion of the company inspected a remarkable and representative trial of culinary Peas, of which nearly one thousand samples had been sown. One leading feature was the fine character and purity of the various stocks. Others inspected interesting trials of Beans, Beets, Lettuces, Onions, Carrots, &c., and, not least in interest for many, a complete collection of aromatic and culinary herbs. The whole of the trials reflected the greatest credit upon Mr. T. A. Newby, who has charge of this important branch of an extensive business. Tea and light refreshments were subsequently served on the grounds, and the visitors departed for town with hearty good wishes for complete restoration to health of Mr. Sherwood, who is residing at Feering with his family and deriving great benefit from the rest he is enjoying. Hearty cheers were given for Mr. Sherwood and his sons on leaving, and the company reached London at a comparatively early hour, having been favoured with glorious weather throughout the day.

#### BOOKS.

**My New Zealand Garden**, by a Suffolk lady, tells the story of some of the pleasures as well as the pains of amateur gardening in that far-off colony, and is a record of personal experience that may be helpful in encouraging other New Zealand settlers to make the most of their opportunities. The ease with which South African plants, Nerine, Gerbera, Protea, and the like can be grown in the open air, and the kindness with which the hardier vegetation of more northern climates accommodates itself to new conditions at the antipodes, disclose possibilities almost unlimited, which cannot but make the English gardener envious, to say nothing of the beautiful Ferns and indigenous flora of which some details are given. The lack of careful revision is to be regretted.

#### EVERGREENS, FLOWERING SHRUBS, AND FORESTRY.

AN interesting lecture was delivered on Saturday, 12th ult., at the Delgany Nurseries, Greystones, County Wicklow, by Mr. A. D. Richardson, late of the Royal Botanic Gardens, Edinburgh, on "Evergreens, Flowering Shrubs, and Forestry." Through the courtesy of Messrs. Pennick and Co., proprietors of Delgany Nurseries, a large number of visitors from Dublin and surrounding country were privileged to attend. They were conducted through the grounds and shown the selection of trees and shrubs of all kinds. Mr. Hume Bland, of Kilquade, presided.

Mr. A. D. Richardson, who was cordially greeted, in the course of his lecture on "Evergreens, Flowering Shrubs, and Forestry," said that they would all agree with him that however interesting the subject of "Evergreens and Flowering Shrubs" was, "Forestry" was of far greater importance to this country. The soil and the climate of Ireland were suitable for forestry. In fact, he could not name a species of tree or shrub or anything hardy that would not flourish in Ireland. They had in Ireland a somewhat humid climate compared with that on the coast of England or Scotland. The climate of Ireland was eminently suited to the growth of Spruce. When properly grown this was a tree which gave the greatest volume of wood per acre. There was a great deal of waste land in Ireland which would be better under timber, as they sent enormous sums of money annually out of the country for timber which could be grown at home. They were a long way behind Continental countries in the matter, and it was only now that the question was becoming acute. A sum of £26,000,000 a year went to the Colonies and other countries for timber. Of that sum £12,000,000 went to Sweden, Norway, and Russia for Pine wood. They could easily grow as good timber as Continental countries if they put their woods under a more rational system. On the Continent the soil which was too damp for one species of tree was planted with trees suitable for the ground. The tree was adapted to the soil, and not the soil to the tree, as was often attempted in draining. As for ornamental trees and shrubs, he expressed surprise to find growing in that nursery specimens of such enormous size, and exceeding any which he had ever seen before. He mentioned several plants which he had found growing in the



open in the nursery, which could not in most parts of England or Scotland be grown except under glass. As for the Rhododendrons, they were the finest specimens he had ever seen. In connexion with the planting of trees in towns in Ireland, he did not know if the same conditions obtained in this country as in cities like London, Manchester, or Leeds, where the atmosphere was polluted with impurities. When electric light was introduced, and gas pipes, which were under the ground, done away with, the trees would have a better chance of living, as they would not be ruined by the escape of gas. The most suitable species of tree for town planting was London Plane. That species of tree had the peculiar property of shedding both leaves and bark yearly. It was therefore well adapted for poisonous atmospheres such as those of London and thickly populated cities. Having given an interesting description of plants grown in the nursery, and which he submitted, the lecturer concluded.

Mr. Lambert Jones proposed a vote of thanks to the lecturer. Ireland was, he said, eminently fitted for producing resinous trees. The very bogs of Ireland were reservoirs of health, and by lowering the drainage of the Barrow and Shannon we would heighten the advantages derivable from the Bog of Allan. These bogs should grow the Spruce and Pine tribe admirably, also the life-giving Laurel and Rhododendron. Lands which in other European countries, and even in England, were marshy, were in Ireland redolent with health. The effect of plantations on the rainfall of our western counties should be tried, as the question is not decisively ascertained at present. In any case the hardy conifers should enhance Ireland's salubrity anywhere, and make West Cork, Kerry, and Clare, the sanatorium of Europe. One result is certain, the shelter produced must create admirable localities for Potatoes and other early vegetables for British markets. Mr. Richardson had spoken of the needless importation of timber. This importation could be reduced by one procedure only, viz., by such plantation as would correct branching or stem shoots. If trees are allowed to grow knotted they cannot have good timber; the stem or trunk timber is depreciated sixty per cent. for joinery uses. He suggests close or shady plantation.

Colonel Hewitson seconded the motion, which passed with acclamation.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—F. X. R.—1, *Kalmia latifolia*; 2, *Kalmia latifolia angustifolia*; 3, the Laurustinna.—Azaga.—The Lily is *Lilium testaceum*, sometimes called *L. excelsum*. The large piece of Fir is probably *Pinus excelsa* (the Himalayan Fir), and the smaller *Pinus austriaca* (the Austrian Fir); but it is impossible to name such tiny pieces with any confidence. The single leaf, silvery underneath, is *Potentilla nivea*.—G. M. Littledale.—1, *Lilium croceum*; 2, *L. umbellatum*; 3, *L. excelsum*.—Mrs. Wedgwood.—1, *Erigeron philadelphicus*; 2, *E. speciosus*; 3, *E. Villarsii*. The Pink is *Cyclops*. Shrub No. 1 is an Acer; No. 2 a *Philadelphus*, but we cannot say which without flowers or fruit.—W. D. R. D.—*Allium margaritaceum*.

**Cabbage Lettuce failing** (G. W., Kent).—Some varieties of Cabbage Lettuce are very susceptible to turning black in the centre, as you describe, especially the wrinkly leaved varieties. Continuity is very subject to it. The cause is generally attributed to the foliage getting scorched and damaged when young through watering overhead or heavy showers followed by sudden bursts of sunshine. The damaged parts are folded in as the plant grows. They go on decaying and render the Lettuce worthless.

**Plants for chalk soil** (F. T.).—Of annuals and biennials any of the following families or genera: Dianthus, Mignonette, Iberis, Poppy, Antirrhinum, Lupinus, Phacelia, Lunaria, Godetia, Foxglove, Eschscholtzia, Virginian, and other Stocks, Aslers, Centaureas, Agrostemma, Sweet Peas, Scabiosa, Saponaria, &c.; of perennials: Dianthus, Iberis, Poppy, Lavender, Narcissus, Pentstemons, Achillea, Aconitum, Gaillardia, shrubby Veronicas generally; Pyrethrum, Lupinus, Lathyrus or Perennial Pea, Tritoma, Asters, Day Lilies, Poppy, Lenten Roses (in shade), Sedum spectabile, Megeases, Scabiosa, Rudbeckia, Prunella, Pulmonaria, and many more.

**Staking Peas** (J. C. D.).—We fear you have not done well in the staking of your Peas to press the stakes so close to each other at the top, as the inevitable tendency of such a course is to force the Pea stems or growths outside of the sticks and thus render them liable to be blown about for lack of support. To furnish that there should have been a space of fully 6 inches between the two lines of sticks all the way up, especially if your Peas (Duke of Albany) are growing strong, as is most likely the case. Not to stake such Peas is a grave mistake, so it is for varieties that grow but 3 feet in height, as the produce of plants that are well staked is usually one-third, and often one-half, more than

is the produce of laid or unstaked rows. It would not now be wise for you to attempt to open or widen the sticks, but you had better get more tall ones and fix those in some 18 inches apart along each side so as to give the outgrowth the support that is needed.

**Camellias out of doors** (H. D. P.).—The ground mentioned should be well drained previous to planting. A layer of brick rubble 9 inches deep should be placed in each hole over agricultural drains. A depth of 2 feet of compost composed of two parts of good loam to one part of fibrous peat should be given. To each six parts of compost one part of rough sandy gravel should be added, well mixing the whole before using. If the soil around the roots is hard when planted they should be well soaked before being turned out, and the soil must be well rammed about them. Great care will be necessary to prevent their becoming dry until the roots begin to penetrate into the new soil. A mulching of well-rotted manure will be advantageous after planting.

**Recipe for fruit tree pests** (B. A.).—The recipe quoted would be an excellent one for the winter dressing of fruit or other trees for the eradication of aphides whilst growth was dormant, but for summer application on tender foliage we would recommend that the mixture be first tried at half its strength on a limited scale, and if found effective without injury to the foliage well and good. If not, the strength of the mixture could be increased until sufficiently strong to destroy the aphides without injury to growth. The two ingredients mentioned in the recipe are largely incorporated in ordinary soft soap, and for a good and safe summer wash for the eradication of aphides on fruit or other trees the following can be safely relied on: Mix together in hot water to the consistency of paint a wine-glassful of soft soap and the same of paraffin; to this add three gallons of rain or soft water, with which well syringe the affected parts.

**Vines sickly** (J. A. P.).—Your Vines are suffering from general debility. This is evident from the weakly growth of the shoots and from the thinness and want of substance in the leaves. Until you can infuse more strength and vigour of growth into your Vines we fear that complete immunity from such troubles as you complain of will be difficult to attain. To this end the step you took in renewing the inside border of your early vineery is in the right direction. Without the Vines have abundance of healthy roots in a sweet and well-drained border it is hopeless to expect good results. We would treat the outside border in the same way as early in the autumn as you can, say the end of September (be careful in the use of artificial manures), and as soon as you can find time and the means serve your other Vines in the same way, and the result in due time will be strong, healthy, and disease-resisting Vines, with abundance of fruit. The parasite attacking the leaves and stems of your Vines is a fungus commonly called Vine rust. The best remedy for its extirpation is flowers of sulphur, applied thickly to the affected parts, and left on for twenty-four hours, partly shading the house during the time. Afterwards the sulphur may be blown off with a pair of bellows. We notice that some of the leaves have been sun-burnt, and traces of red spider are to be seen on others.

**Mealy bug on Vines** (MRS. ROXHILL).—When mealy bug have secured a firm lodgment on the Vines it is a tedious and difficult matter to get rid of it. One of the best ways of doing so is the following, presuming that the work is to be taken in hand at once: Cut away from the Vines all superfluous lateral growth, taking care that every leaf and branch cut off is carefully collected and burnt. Syringe the Vines copiously with the following mixture, taking care that every particle of the foliage, both under and over leaf, is well saturated. A claret-glassful of paraffin, the same of soft soap, both mixed together with hot water until reduced to the consistency of paint, adding afterwards three gallons of rain or soft water. With this mixture carefully syringe the Vines two or three days in succession, at the same time syringing the walls and roof of the vineery with the same solution. This application will kill every bug it will come in contact with, at the same time it will be necessary to closely inspect the Vines once or twice a week whilst the foliage remains on them for the further appearance of the enemy, and wherever seen should be shot at with this mixture. In winter, as soon as the Vines have been pruned, the rough outside bark should be rubbed off, and every particle of the stem well washed with the mixture. After this, the surface soil of the border should be removed at least to the depth of 1 in., and suitable mould added as a top-dressing to the same depth. As soon as growth is on the move in spring a keen look out must be kept for the reappearance of the bug, and wherever seen the mixture applied to it with a small brush. This look out must be kept throughout the season and the remedy applied. On the effective discharge of this duty hangs the success of the remedy. Should your Vines be bearing a crop of fruit the mixture cannot be applied until the Grapes have been cut.

**Origin of Crimson Rambler Rose** (*Rosa sinica Anemone*).—In your interesting account of British-raised Roses you refer to the Crimson Rambler as raised by Mr. Turner. As there are so many stories as to the origin of this Rose, such as to its having been brought from Japan by a Scotch engineer, &c., I venture to think many of your readers would be glad to have the question set at rest either by you or by Mr. Turner, who must know more about its origin than anyone else. Did Mr. Turner raise it or did he only put it on the market? The true history of this most remarkable Rose would be of great interest. There is another Rose I should like to ask some questions about. At the Rose show at the Temple on July 2 a beautiful bunch of *Rosa sinica Anemone* was shown; I forget by whom, I regret to say. It was a wonderful sight. I should like to know whether this Rose can be flowered in the open air; also, is the name *R. sinica* a synonym of *R. levigata* (the Cherokee Rose)? If so, why is a Rose from China called after a tribe of North American Indians? I should be most grateful if you would answer these questions.—F. N. A. GARRY. [In the bottom paragraph of the last column, on page 5, in our issue of July 5,

you will see it stated that *Crimson Rambler* is of Japanese origin, but was of English introduction. We believe no authentic account has ever been published regarding the origin of this Rose, but we believe it is a native of Korea. It was brought to England by the engineer of a trading vessel. This vessel brought from time to time a consignment of plants from Japan to Mr. Jenner, of Edinburgh, and in one of these lots it was found. The gardener of this said gentleman was also accorded the privilege of disposing of it in England, which he did, we believe, for a very modest sum: The Rose was also exhibited at the Drill Hall on July 8, 1890, under the name of "Engineer," and received an award of merit, the exhibitor being Mr. J. Gilbert, Dyke Bourn, Lincoln. The lovely and most valuable single Rose (*R. sinica Anemone*) can be freely flowered in the open. It is far superior in this respect to the type *R. sinica*. Germany has the credit of its production, the variety having been obtained by cross-fertilisation by Herr Schmidt and introduced in 1896. The native habitat of *R. sinica* is China, but it has been naturalised in many parts of the globe. The Americans very soon invent a name for a Rose, and doubtless it is owing to its establishment in the States that the title of "Cherokee" has become associated with this Rose, but why this is so would, we think, be difficult to ascertain.—Ed.]

**Ivy on trees** (G. W., Kent).—Unquestionably the growth of Ivy on trees is fatal to their proper development, and should never be allowed on valuable specimens, as it means ruin sooner or later.

**Scarlet Runners and Dwarf Beans** (G. W., Kent).—No doubt the cause of your failure is through soaking the seeds too long in paraffin, for unless they are thoroughly ripened and matured—as in a great many cases they were not last year—the paraffin would have a serious effect upon them, as, indeed, it does on all seeds when allowed to remain for any length of time in it. If necessary at all to use this for Runner and Dwarf Beans, it is far better to sprinkle a little along the drills after the seed is sown. Dwarf Beans are frequently sown at too great a depth, and many cases of failure may be attributed to this. Your method of manuring and treating the soil is excellent, provided, of course, the patent manures are used with discrimination, as no doubt they are in your case.

**Persimmon** (A. CHAPMAN).—You ought to find no difficulty in raising plants from your seeds of *Diospyros Kaki*. They would, however, not produce fruit of good quality. There is a large number of named varieties which produce first-rate fruit, and fruit from a seedling would be about the same compared with them as a first-rate Apple compared with a Crab. There should be no difficulty experienced in fruiting the Persimmon in a sunny greenhouse; it fruits annually at Kew in a sunny house, and in Canon Ellacombe's garden in Gloucestershire it bears a fine crop of fruit every year on a wall out of doors. It likes fairly rich, loamy soil, and may be treated as Peaches or other orchard trees in pots, or may be planted out.

**Removing bulbous plants** (IGNORAMUS).—Such things as Narcissi, Tulips, and the like may be lifted after the leaves have died down, roots and foliage intact, and laid in by the roots in any spare border to more fully mature. This can hardly be done without some check resulting, but at the same time the check is less than would be the case were the bulbs not heeled in at all. Any time after the middle of July the bulbs may be again lifted and sorted into sizes for repotting in the border or in woodland or grassy places. No special treatment is required, and there is no reason, if given the usual treatment, why good blooms should not result another year. The least satisfactory of bulbous plants so treated is the Hyacinth, yet even this is not necessarily a failure if grown in good sandy loam. Indeed, we have now some bulbs in the garden that were forced into bloom a dozen years ago so early as January, and each year they carry good spikes of flowers. We do not say the increase is great, but in conjunction with the ordinary treatment accorded it is as much as could be expected. In this respect in private gardens as there have been much waste in the past, for any flowers are welcome in border or woodland in spring time. Usually the bulbs we have referred to have been lifted every second year, and depending on their kind it is well that a rest be given occasionally, though more especially in a continuously cold and wet season like the present one. The usual deep digging, manuring, and sowing about the bulbs when grown in the border should not be lost sight of in the original planting. Each time the bulbs are lifted and replanted a fresh position in the border should be assigned them. Belladonna Lilies may remain undisturbed for an indefinite period if mulched annually, and we would certainly refrain from moving any that flowered well, except for creating fresh plantations. At such times the planting may be done quite early in July, and dry bulbs even to September. Delay in planting such things is not beneficial, however. German Irises and Day Lilies (*Hemerocallis*) may be replanted now and then when the clumps become too crowded. This is an item that cannot be arranged by rule of thumb, however, and success largely depends on locality, depth of soil, &c. In light soils, such as the Thames Valley, the finest flowers of the Flag Irises are obtained only by biennial or triennial planting. Where ample soil exists, however, and ample room is given the plants, we know instances in a more holding soil where patches have formed 4 feet across and yearly produce several dozen spikes each. To remove such grand examples would be folly. We therefore advise you to be guided by your own results in your own special circumstances. Flowers may be sent for naming. See our rules and regulations. Good flowering specimens should be sent to obtain accuracy in naming.

\* Several answers are left over until next week.

### GARDENING APPOINTMENT.

MR. TOM GILE, of Ascott Gardens, Leighton Buzzard, has been appointed gardener to A. J. Waley, Esq., of one House, Reigate.



# THE GARDEN

No. 1603.—VOL. LXII.]

[AUGUST 9, 1902

## IMPROVEMENT OF FLOWER EXHIBITIONS.

WE have lately had reason to praise a beautiful way of showing Roses, not the so-called garden varieties, but exhibition blooms, which tradition says shall be thrust into narrow tubes inserted in a green painted box. The ardent exhibitor will probably reply that because one or two classes are provided for flowers shown in this dainty way it does not follow the whole exhibition can be so treated. We have no desire to see the Rose exhibition completely altered in complexion, but there is no reason whatever why more classes of the nature of those provided at the Temple Rose show should not be instituted in the future.

But the whole method of staging flowers is wrong. As we have pointed out before, exhibitors persist in making a nursery garden of the exhibition, and pack in as many things as possible in a set space, without the slightest regard for the rarity or otherwise of the individual flower. A common garden flower, known to every intelligent country child, is thrust against an interesting rare kind some visitor would like to examine and probably purchase.

It is against the interests of the trade to put the matter on no higher level, so to exhibit flowers that all natural grace is gone. Of course there are exceptions, and a few nurserymen make displays that are at once delightful and instructive; but their example is not followed, and we stick to the ways of our forefathers with painful persistency.

We have lately heard complaints that flower shows this year have not in many cases received their usual support. This may be attributed to various causes no doubt; but it is not unlikely that flower exhibitions are ceasing to interest the general public because of the wearying monotony of the average display.

Last year we had reason to draw attention to the coloured grounds on which flowers are shown. The usual material is a hard raw green baize, which destroys the natural colouring, not only of flowers, but of foliage. The secretary of an important northern show asked us for assistance in choosing a suitable pattern of colouring for flowers and foliage, and we did so, selecting a certain tint of neutral grey-green, of a nature that is warm rather than cold, of course impossible to describe accurately in words, but such a colour as may be matched

in nature in many a piece of tree bark or half-dried moss. It is a colour that suits everything in the way of flower and leaf, so nearly neutral, and, though not dark, so low in tone that it does not come into competition with the most colourless foliage, such as is often seen, for instance, in Orchids.

As this matter of making flower shows more beautiful and interesting has been again taken up, we hope the following words we wrote last year about the supports for the flowers themselves will not be forgotten: "It is open to question whether the system of rough benches covered with baize could not in itself be considerably improved upon. We think that if a little careful thought were given to the matter that it would be easy to design very simple benches with upper ranges of staging, made in such sections as could be placed or easily fitted together in any of the forms of combination that might be required. If these were simply and strongly made, and painted a suitable colour, and given a fresh coat of paint every year before the spring shows, or a washing one year and a painting the next, the most difficult of the drapery part of it would be abolished, and the stages would be neater and more uniform. The drapery might be retained on the front of the bench down to the floor level, as it is obviously convenient for exhibitors to be able to put away their baskets and other matters under the bench."

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

- August 12.—Clay Cross Flower Show.
- August 13.—Salisbury Horticultural Show.
- August 13 and 14.—Hastings, St. Leonards and District Horticultural Society's First Summer Flower Show, Public Hall, Hastings.
- August 14.—Taunton Dean, Rock Ferry, and Sheffield Horticultural Shows.
- August 16.—Meeting of the Birmingham Amateur Gardeners' Association.
- August 18.—Warkworth Floral and Horticultural Show.
- August 19.—Royal Horticultural Society's Committees meet.
- August 20.—Oxford Horticultural Show; Shrewsbury Floral Fête (two days).
- August 21.—Jersey Agricultural and Horticultural Society's Show.
- August 26.—Harpden Horticultural Show.
- August 27.—Bath Floral Fête.
- August 28.—Sandy Horticultural Show; Stirling Horticultural Exhibition.
- August 29.—Bradford Horticultural Show (two days).
- September 2.—National Dahlia Society's Show and Royal Horticultural Society's Meeting, Drill Hall, Westminster.

September 3.—Glasgow and Preston Shows (each two days), and York Florists' Exhibition.

September 4.—Paisley Horticultural Show (two days).

September 6.—Thornton Heath Dahlia Show.

September 10.—Royal Caledonian Horticultural Show at Edinburgh (two days).

September 16.—Dahlia Show, Royal Aquarium (three days).

September 18.—Great Fruit Show, Crystal Palace (three days).

**The proposed vegetable exhibition.**—The council of the Royal Horticultural Society, on Tuesday last, considered a further communication from me relating to the proposed vegetable exhibition next year at the Drill Hall, and finding that a big show was not asked for, but only a good representation of the best vegetables in season, have consented to the same being held subject to certain conditions with regard to prizes and classes, which would have to be arranged satisfactorily.—A. DEAN.

**Crossandra undulæfolia.**—Introduced from the East Indies in 1881 this handsome erect flowering stove plant has certainly not received the attention which its merits entitle it to. Not only are the leaves attractive, but the flowers, borne on erect spikes, are of such a rich shade of salmon-orange as to be almost unique as regards colour. Grown in 5½-inch pots and interspersed with other stove plants, they present quite a fascinating appearance. Propagation is effected by taking side shoots moderately firm and inserting them in 2½-inch pots in a light sandy soil and treating as for ordinary stove plants. Pot on as required in two parts loam, one of peat, and some sharp silver sand. Syringe during the growing season, but not when in flower; the colour is so delicate that the blooms would soon become spotted.

**A peculiar grafted Laburnum.**—On page 57 of THE GARDEN Mr. Owen Thomas gives a very interesting account of what is doubtless Laburnum (Cytisus) Adami, as growing in the Botanical Gardens at Birmingham. According to Nicholson, Laburnum Adami was raised or originated in 1825, by Jean Louis Adam, by shield-grafting or budding C. purpureus on to a stock of the common Laburnum vulgare. As Nicholson further observes: "A most extraordinary thing in connexion with it (*i.e.*, L. Adami) is the complete reversion of some parts of the same tree to one or the other of the parents." It may also be added that intermediates appear with buff or reddish flowers, and now and then tufts or Witches' Broom-like masses of what is practically C. purpureus appear on the same branch as the intermediate phases and the typical yellow Laburnum. Dr. Masters recently exhibited a branch showing these variations before the scientific committee of the Royal Horticultural Society, and every year specimens are sent for name or explanation to the editors of gardening papers and others, often accompanied by the remark that the tree on which they grew "has never been grafted." The point of special interest, however, in Mr. Thomas's note is that the particular tree at Birmingham would appear, from the wording of his remarks, to have been made over again in the Botanical Gardens there about thirty years ago by grafting C. purpureus on to the Laburnum stock. If this is so we have, as I believe, the only known instance



of Adam's original experiment and its results having been corroborated. I understood some few years ago that Messrs. Veitch, acting, I believe, on a suggestion of the scientific committee of the Royal Horticultural Society, undertook to experiment by grafting or budding *C. purpureus* on to the Laburnum, but I never heard if they actually did so or if any results were obtained. That variegation can be communicated to green-leaved stocks by budding or grafting variegated scions upon them is pretty well established; but so far the possibilities of graft hybridisation are, in the main, supported by Adam's *Cytisus* or Laburnum. I may say that I have repeatedly budded *C. purpureus* on to the common Laburnum without obtaining any results, but I should be the last to argue from my own failures that others may not have succeeded, as in the case at Birmingham. The original graft in the last-named case apparently died, notwithstanding which the stock had become "inoculated" as it were by the scion, an experience analogous to that in the case of variegated *Abutilon*, *Pyrus*, &c., as grafted on green-leaved stocks, the actual scions dying after they had communicated their characteristic vitality to the stock. It is, of course, well known that in the case of garden varieties of Apples, Pears, Grapes, &c., the stock often influences the scion in a marked degree, and that the converse is less often observable is, perhaps, due to the fact that, as a rule, any growth produced by the stock is suppressed or removed as soon as it appears. There is a difficulty also in deciding the precise variation due to grafting varieties as against that produced by other factors, such as soil, climate, &c. The case of pure species being varied by grafting is less open to sources of error or misapprehension, but even here again there is room for further experiment and caution in preparing records of results. I hope, however, Mr. Latham will kindly tell us the history of the Birmingham grafted or budded Laburnum, and that this very interesting subject will also be kept in view by all horticulturists interested in the mysteries and vagaries of vegetable physiology. —F. W. BURRIDGE.

**The Prairie Rose.**—Where *Rosa setigera* can be got to flower freely it should be given a prominent position, for when smothered with flowers in August it makes a very pretty object. It is a native of North America and is of a particularly wild, rambling nature, shoots 15 feet or more long being made in a single season. The flowers are in large corymbs and are rose-coloured, changing with age to white; they are about 2 inches across, and continue in good condition rather longer than the majority of single-flowered Roses. When planting it a fence or cluster of good strong, rough branches should be provided for it to ramble over. If grown in this way the flowers are seen to advantage. At Kew it is flowering more freely than usual in the Rose garden, where it is very effective. —W. DALLIMORE.

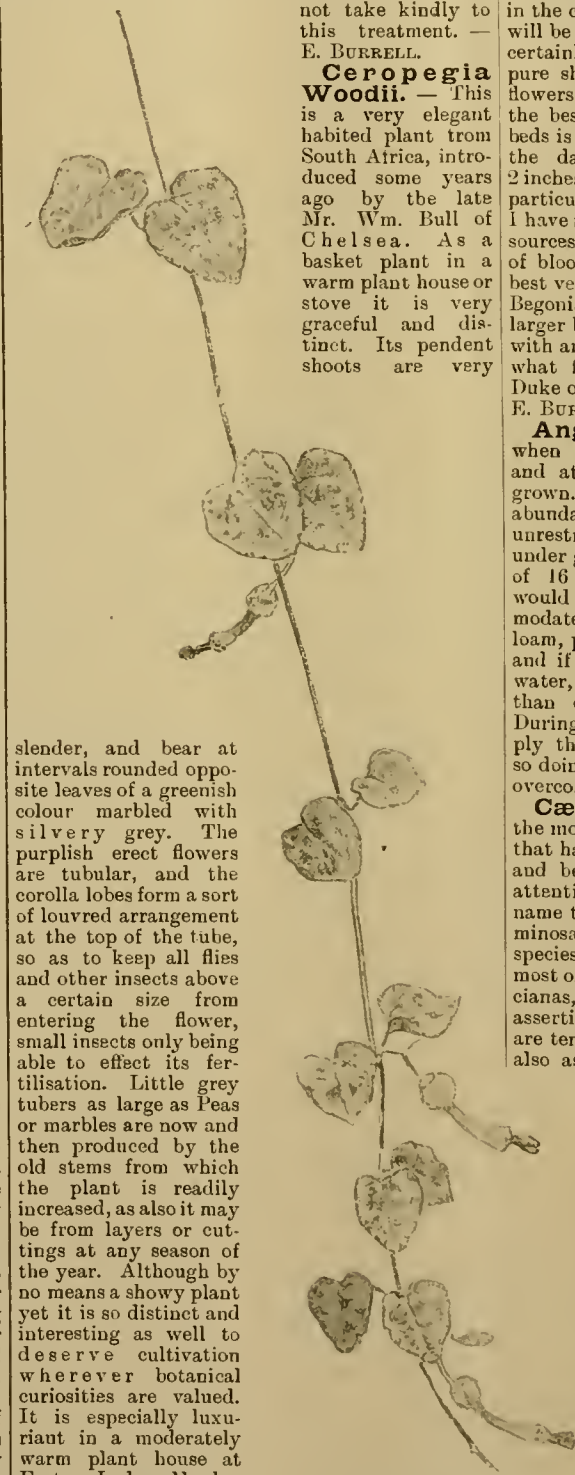
**Achimenes Dazzle.**—*Achimenes* are so easily cultivated and lend themselves to such a variety of purposes that one would prefer to see them more frequently at our shows. The variety under notice has been grown for very many years, and still holds its position against all new comers. The small dark green foliage, brilliant scarlet flowers, and dwarf habit make it most useful for the front of the greenhouse stage. For grouping it is one of the most charming plants, the colour being so striking that it can be arranged instead of scarlet *Pelargoniums*, and it will impart a rich tone that the latter often fail to do. —R. P.

**Trellis Gooseberries.**—This manner of cultivating Gooseberries is rapidly growing in favour, and having practised it for the last twenty years I can testify as to the excellent results in regard to size and quality of the fruit thus obtained as well as to the ease with which it is gathered and netted. Another point in its favour not so generally known is the extra protection afforded against spring frosts. In a season like the present, when the bush fruit is nearly all on the ground, that on the trellis is very little affected, a state of things to be explained by the fact that the perpendicular style of training enables the foliage to shelter the fruit much more

effectually. As very close pruning (sometimes associated with a very brief life for the trees) is an essential feature in trellis system, I should like to note that the majority of our trees have been in their present quarters for twenty years, and that failures are due to an error in the selection of varieties. There are some sorts that do not take kindly to this treatment. —E. BURRELL.

### **Ceropegia**

**Woodii.**—This is a very elegant habited plant from South Africa, introduced some years ago by the late Mr. Wm. Bull of Chelsea. As a basket plant in a warm plant house or stove it is very graceful and distinct. Its pendent shoots are very



CEROPEGIA WOODII.

slender, and bear at intervals rounded opposite leaves of a greenish colour marbled with silvery grey. The purplish erect flowers are tubular, and the corolla lobes form a sort of louvred arrangement at the top of the tube, so as to keep all flies and other insects above a certain size from entering the flower, small insects only being able to effect its fertilisation. Little grey tubers as large as Peas or marbles are now and then produced by the old stems from which the plant is readily increased, as also it may be from layers or cuttings at any season of the year. Although by no means a showy plant yet it is so distinct and interesting as well to deserve cultivation wherever botanical curiosities are valued. It is especially luxuriant in a moderately warm plant house at Easton Lodge, Monkstown, Ireland, its slender stems drooping a length of several feet below the receptacle in which it is growing. Mr. Greenwood Pim, M.A., also grows the *Aristolochia*-like *C. elegans* and some of the allied *Stapelias* well. One of the most peculiar kinds of *Ceropegia* is the thong-like *C. Sandersoni*, which has mottled, vase-like green flowers, covered with a fine lobed top, shaped and fringed like a parasol,

but for perennial interest and quaint attractiveness none of the many known species surpasses *C. Woodii*, which is herewith illustrated. —F. W. BURRIDGE.

**Fibrous-rooted Begonias.**—This race of Begonias, although not so showy as the tuberous section, make charming beds, and are by no means to be despised as pot plants. It is probable that in the course of a few years the size of the flowers will be considerably increased; at present they are certainly small, but are remarkable for the clear pure shades in scarlet, pink, and white, and the flowers are produced in great profusion. One of the best things to associate with them in small beds is the very dwarf *Ageratum*, that variety with the dark blue flowers that only grows some 2 inches high. I am under the impression that this particular form of *Ageratum* is very rare, at least I have received so-called dwarf forms from different sources nothing like so good, either in habit or size of bloom; the form we have is far and away the best very dwarf blue bedder in cultivation. If the Begonias in their different shades are required for larger beds it is advisable to plant in large clumps, with an occasional taller plant to relieve the somewhat flat appearance. *Fuchsias Annette* and *Duke of Edinburgh* are useful for the purpose. —E. BURRELL.

**Angiopteris evecta.**—This giant Fern, when well cultivated, is one of the most noble and at the same time one of the most easily grown. But it will only appeal to those having abundance of room, where its development will be unrestricted, and its huge spreading fronds—which under good conditions attain a length of upwards of 16 feet—may be seen to advantage. We would strongly advise those who can accommodate it to plant it in a mixture of sound loam, peat, broken red sandstone, and coarse sand, and if possible in close proximity to a pond of water, where the roots derive more nourishment than could be given from surface waterings. During summer shade from strong sunshine and ply the syringe diligently to the fronds, as by so doing thrip, which is so destructive, is entirely overcome. —R. P.

**Cæsalpinia japonica.**—This is one of the most distinct of the innumerable hardy shrubs that have been sent to this country from Japan, and being just now in flower it at once arrests attention. The genus *Cæsalpinia* has given the name to a sub-division of the extensive order Leguminosæ. With the exception of the above-named species, all the *Cæsalpinias* are tender, and so are most of their immediate allies—the *Brownias*, *Poincianas*, *Jonesias*, &c. Exception may be taken to the assertion that all the *Cæsalpinias* except this one are tender, on the ground that *C. Gilliesii*, known also as *Poinciana Gilliesii*, is not so, but even in the south of England this needs the protection of a wall. In returning (after this dissertation) to *C. japonica*, it may be described as a free-growing subject, of a loose spreading habit, almost Bramble like. The stems are armed with solid curved prickles, and clothed with elegant bipinnate leaves of a pleasing shade of light green. The flowers, which are borne in partially erect racemes, are about an inch in diameter, and of a bright yellow colour, while the glowing red of the anthers in the centre causes them to stand out markedly from the rest of the blossom. This *Cæsalpinia* was introduced from Japan by Messrs. Veitch, and first flowered at Coombe Wood fifteen years ago; but it is even now quite an uncommon plant. Though sometimes injured by particularly severe winters, it, in the south of England at least, soon recovers. —T.

**Genista æthnensis.**—In gardens where summer-flowering shrubs are required, this ought certainly to have a place, as throughout July and the early part of August its graceful pendulous branches are wreathed with golden flowers. At Kew a number of fine groups may be seen. Like many other really good shrubs, it is a very old



introduction and one that has been sadly neglected, really fine plants being very scarce. It is a native of Sicily, and grows from 15 feet to 20 feet high. The branches are long, pendulous, and Rush-like, the flowers small, borne from the nodes of the terminal half of the current year's growth, and golden in colour. The leaves are very small but sparingly produced, and fall early in summer. Their loss is, however, made up for by the bright green branches. It is best to raise the plants from seeds. The young plants should be frequently stopped during the first three years of their existence to promote a bushy habit. At seven years old specimens can be had 6 feet high and 5 feet through. Like other *Genistas*, this should be placed in the position it is to occupy permanently when not more than two or three years old, as large plants move badly. — W. DALLIMORE.

## EDITOR'S TABLE.

### CEROPEGIA WOODII AND CALCEOLARIA BURBIDGEI.

Mr. Greenwood Pim sends from Easton Lodge, Monkstown, County Dublin, sprays of the pretty *Ceropegia* and *Calceolaria* Burbidgei with this note: "I enclose for your table some sprays of *Ceropegia* Woodii, which grows, as you see, extremely well here in a temperate house in which *Adiantums* and many other Ferns also do well, also *Gloxinias*, *Bougainvilleas*, and a good many cool Orchids, &c. You will also find a bit of *Calceolaria* Burbidgei. This is growing in a cool greenhouse with *Pelargoniums*, *Begonias*, herbaceous *Calceolarias*, *Azaleas*, &c. It is planted out and it is now through the top ventilators. It has never been out of flower since Christmas, and is now blooming more profusely than ever."

[Both interesting plants. The *Calceolaria* is a very handsome greenhouse flower, and is one of those good things seldom seen outside a botanic garden.]

### GALEGA BICOLOR.

Mr. W. B. Hartland, Patrick Street, Cork, sends flowers of this pretty *Galega*, which originated at Ard Cairn. It has a wealth of flowers of blue and white colouring. It is apparently as free as the white *Galega officinalis*, and is probably between the two, viz., the type and alba. There is a brightness about this bicolor form that should commend it to those who rejoice in groups of easily grown hardy plants.

### LONICERA HILDEBRANDTIANA.

Messrs. R. Veitch and Sons, Exeter, send flowers of this beautiful Honeysuckle, which we hope soon to illustrate. We shall describe it more fully then. The tube of the bloom of this great Honeysuckle is 4 inches in length, and the spread of the open end was almost 2 inches. The bright green shining leaves are solid and leathery and are 4 inches long by 2 inches broad. It is a remarkable plant.

### OTHER INTERESTING PLANTS FROM EXETER.

*Symphandra Hofmanni*.—A very rare plant of pretty colouring. We should much like to know where Messrs. Veitch grow this. A note about its culture and requirements would interest many readers.

*Alstroemerias*.—A delightful gathering of mixed forms of *A. chilensis* and *A. aurantiaca*, the latter very rich in colour.

*Solanum crispum*.—Its blue colouring is most welcome. Quite happy in southern counties.

*Scabiosa caucasica magnifica*.—A very large and beautiful variety of a good garden plant.

*Cytisus nigricans*.—Shrubs in flower become fewer as the summer days pass away. We think too little of the glorious family of Brooms, and in the present instance this kind at this time is covered with bright yellow flowers, which are borne in erect racemes. The lower flowers open first, and thus a succession is gained, the plant remaining long in bloom. *C. nigricans* was introduced from South-East Europe about the year 1730, and is readily raised from seed, which is freely

produced. The word *nigricans* refers to the black colour that specimens become when prepared for the herbarium.

*Notospartium Carmichaelie*.—Another southern country plant, with a wealth of pink flowers.

Many other flowers were sent, some of which we hope to illustrate.

## WANDERERS OF THE GARDEN.

"The Orchis takes  
Its annual step across the earth."

IDEAS, like epidemics, are in the air. Among others that have occupied the attention of the gardening world of late has been the provoking conduct of the Vanishing Bulb, the Creeping Crocus, and the Disappearing Seed. These wanderers of the garden are difficult to understand and puzzle us every year anew. All the long winter the plants have had it their own way; then spring comes round again and we want to have our finger in the pie, but we find the plants will not let us. Bulbs vanish, *Crocuses* creep, seeds disappear, and we have to confess the garden folk are livelier and more independent of us than we knew.

So we have been studying our wanderers a little and find there are a good many kinds of them—some whose movements are easy to follow, because they run about above ground, before our very eyes; others most inscrutable in their methods, for they are burrowers, and creep about in places where we cannot see them.

The above-ground wanderers are simple creatures; we are all familiar with them, and know how merrily they run, and crawl, and climb, and trail to seek new pastures. We may watch the wild Strawberry racing about to choose some favoured spot, seizing on it with dainty toes or fingers, there to root, or the Periwinkle throwing out yards of green wire, that will presently hook on somewhere and start fresh shootlets and rootlets, or later in the year we may admire the motherly little Ivy-leaf Toad-flax as she feels her way about the wall to find a comfortable cranny for her seeds, or the naughty Dodder—though he will be outside the garden fence—as he button-holes his hapless host so fatally. All these wanderers we may notice with amusement, and can more or less control them, but it is a different thing with the underground travellers; these work in the dark, and their movements are wrapped in mystery.

There is variety among them; some have bulbs and some have tubers, and equally surprising things are done by both. One of the cleverest is the intelligent Tulip. We can find out how intelligent he is by planting him in a shady part of the shrubbery, where he will not be comfortable; he will not stay there, he will walk out, but we shall not see him doing it. He will go, if not by a twopenny tube, by something very like it, any way it will be a subterranean one. He will send out a long white shoot horizontally running underground, and make himself a new bulb at the end of it, using up the old stuff which comes by way of the tube. Then next year we shall see how far our Tulip has marched, and if he does not think he has gone far enough into the fresh air and sunshine to enjoy himself as a Tulip knows he should, he will repeat the process every season till he is satisfied and we shall be wondering, "Now, who has been interfering with that Tulip? He has been moved by somebody." So he has, but that somebody is himself.

The creeping Crocus in its way is just as clever as the Tulip. We often find him in unexpected places. How does he get there?

Sometimes he makes even his enemies help him. Maybe a hungry slug will get hold of him unawares and affectionately eat him up, all but one "eye." The Crocus, undismayed—even if left high and dry on the top of the mould—will set to work at once to make the best of a bad job. He is as good at working from one eye as a Potato, and will send down a diving-tube straight into the earth, where he will develop a new Crocus, and again we shall be puzzled to death to think "where that Crocus sprang from."

It is wonderful what *Crocuses* (must we say *Croci*?) can do if put to it. This year with our own eyes we have seen them performing wonders in the depths of earth. A handful or two had been buried too deeply and forgotten by a gardener. Long after the time for blooming had come and gone, these luckless *Croci* pushed to the top to look out, like Rip Van Winkles, at a world which had come to a point they could not comprehend. Digging down to them was like digging down to the relief of miners. There they were as busy as bees, manufacturing baby bulbs out of raw material, and sending upwards long yellow-white stems, much telescoped, but trying to form buds. They had been in the furnace of affliction, and could only wander up, not round-about, but even to do that was something, and it saved their lives. Tubers are very walkative, none more so than the common early purple Orchis.

The author of "Plants that Walk" has reckoned that this Orchis, by means of his tubers—first one and then the other dying off and a fresh one coming in front of it—will pace, one tuber's length at a time, across a meadow 6 inches in a dozen years. This is slow going, I fancy, judging by the rate at which my own early purples romp about the fernery where they live, but never forget to take that annual step across the earth, made famous by the poet.

The wanderings of some garden Lilies are surprising. When it comes to the roll-call in the herbaceous border we see what they have been doing when we were not looking. Quarters are shifted, there has been a rearrangement decided on by the plants themselves, and we have to acquiesce, for we must be ruled by them as a household is ruled by a delicate child. *Lilium auratum*, that lovely lady of scent and sweetness, is very fidgetty, and manages to get about much as the Tulip does. If we put her in a pot, carefully placing her in the middle of it, she will make a point of taking her own way—she knows best what she likes, and will move off to the very edge. There is, indeed, no end to the original things done by the plants, which, to use an expression that once amused me from a coolie gardener, "Have an Onion to them."

Mice and moles (might we add the gardener's spade?) do also, undoubtedly, assist our wanderers; in no other way can we account for the sudden leaps they take, over a house and garden, for instance, planting themselves where none of the kind have heretofore been seen. Some Lilies of the Valley have just performed this feat before my very eyes, at least I see the Lilies where they are; as to the trick of how they got there I was not quick enough to find it out.

But it is a good garden rule to let our wanderers, whenever possible, remain where they have wandered to; they have worked and should earn their reward, and their migrations always do them good. Change of air, change of scene, change of food is as great a tonic to plants as it is to people. Like us, they are invariably the better for a little wandering.

F. A. B.



## AN AMATEUR'S GARDEN.

It is rare to find in a private garden of not unlimited space so large a collection of rare and interesting plants as in that of the Old Parsonage, St. John's, Ryde. It was a pleasure to go round those borders once again, albeit a sad one, for the loss of the master, always so genial and enthusiastic, could not fail to be fresh in memory, but, even so, it is good to believe that there is every prospect and hope of the garden being kept up on the old lines, and that it may still remain the treasure-store that it is.

Masses of Irises of all the best forms of the Germanica and bearded type were in flower at the end of May, as well as many others of rarer stamp, for Mr. Ewbank was a great lover of every kind of Iris, though of later years his chief interest has been centred in conquering the difficulties which surround the culture of the less-known *Oncocyclus* breed. A very fine clump in full flower in the open border, demanding no particular attention, of a hybrid *Oncocyclus*—*I. lupina* × *I. Ciengiali*—testified to the superior robustness of the mixed race; but, as Sir Michael Foster tells us, the hybrids partake less of the *Oncocyclus* character than of that of the other parent. Several other interesting Irises were in flower. A patch of the pretty little Hungarian Sand Iris (*I. arenaria*) not often found in English gardens, though easy enough to raise from seed, was bright with its yellow flowers. Bulbous Irises were represented for the moment by *I. Sisyrinchium*, whose fragile but exquisite pale blue blossoms were closed when we came to look for them in the evening; while the Californian *I. macrosiphon*, with cream-coloured flowers beautifully veined, would probably have excited endless discussion on the score of identity had any expert in that particular section been present. Camassias of all the best species, including the fine and still uncommon *C. Engelmanni* in strong clumps, were amongst the most prominent ornaments of the bulb borders, and against the stone-blue of their spikes the vivid glow of a fine head of the orange-scarlet *Habenanthus pratensis* shone out very conspicuously. Tall *Eremuri* were beginning to flower, one very good clump of *E. Bungei* having no less than ten spikes; and *Asphodels* were just at their best. The keen pleasure which such a garden gives to a true lover of plants is well illustrated here, for each succeeding morning of the year is greeted by the opening of some fresh and very often rare flower. Over the pathway a Judas Tree (*Cercis Siliquastrum*), old enough for its brittle trunk to be split in two after the not infrequent manner of its kind on reaching mature age, was rosy red with crowded flower-buds.

The rockery was bright with masses of *Aubrietia* and *Saxifrage* in all their best forms, and *Ramondias*, *Gentians*, *Morisia hypogæa*, alpine *Crowfoots*, *Edrianthus serpyllifolium*, and many another mountain plant in full flower showed that the conditions of the island garden, situated only a little above the sea level, came not amiss to them. The New Zealand Forget-me-not (*Myosotidium nobile*), so capricious in most places, was flourishing exceedingly with strong heads of bright blue flowers, and *Omphalodes Luciliae*, which many of us would also find domicile in our gardens, has apparently no reluctance here to display its delicate beauty of flower and leaf. It may be well to remind growers of these two somewhat fastidious but most beautiful plants, that an addition of lime to the soil in which they were growing proved to be the great factor in their

well doing. Never has it been my privilege to see so magnificent a clump of *Cheiranthus mutabilis* as on this rockery. Tender species as it is, and often disappointing and short-lived, a specimen such as this would make any one wish to possess it, and to try it again and again if it failed, yet it is not often to be seen even in Devon and Cornish gardens, where it might thrive without difficulty. By its side it was delightful to find the charming old double yellow *C. Harpur Crewe* full of flower and fragrance—a Wall-flower which puts forward no obstacle of constitution or culture to hinder its growing in any garden, yet is not to be found in one out of a hundred.

*Cypripedium spectabile* was sending up strong growths, but *C. Calceolus*, a most interesting species from the fact of being one of the rarities of our own British flora, was showing many of its quaint yellow and brown slippers. It would be impossible to tell of a tenth part of the plants which are at home in this overflowing garden, or to speak of the wealth of the flowering shrubs it contains. Many readers of THE GARDEN are familiar enough by hearsay, even if they have not seen, the enormous bush of *Poinciana Gilliesii* against the house and the *Mandevilla suaveolens* which clambers up to the eaves—the *Lonicera hildebrandtiana*, with its sentry-box for winter shelter, which so delighted the heart of its owner by the uniqueness of its flowering in the open air, and the huge trees of the lovely lilac *Abutilon vitifolium* and its white variety. But it would be well, I think, to draw attention to a Rose—*R. sinica* var. *Anemone*—which, alas! he never saw in bloom, but which is flowering this season for the first time against the wall of the house, and is one of the most beautiful of single Roses. It is a hybrid of *R. levigata*, a much-benamed and widely-distributed species, of which *R. sinica* is one of the synonyms. The typical form is familiar to many under the name of the Cherokee Rose, which has large white solitary flowers. In the variety *R. s. Anemone*, the flowers are bright rose-pink, almost shell-like in their cupped form, with petals of good substance and about 4 inches across. The effect of the whole plant is heightened by the vigorous glossy leaves, mostly trifoliate, which clearly indicate its descent, and altogether it is remarkable enough when in bloom to arrest the steps of any passer-by. This Rose was referred to by Mr. Woodall in his interesting "Riviera Notes" (THE GARDEN, May 11, 1901) with much appreciation, but that it is not as yet well known in England is certain, and we must hope that it will not prove too tender for ordinary gardens. At any rate, it should be noted for the southern counties, for a more beautiful Rose of its kind it would be hard to find. A large breadth of the crimson-spotted yellow *Rosa berberifolia*, though none of its flowers were then open, was pretty in its glaucous Barberry-like foliage and evidently happy where it could run riot as it liked. Another golden-flowered Rose (*R. Ecce*) seldom met with was growing against a wall as strongly as its slender character would ever permit, and not far off was a charming deep pink single China Rose, the name of which could not be ascertained. It is very evident that the climate of the Isle of Wight suits these rare and somewhat exacting species of Rose.

An idea seems somehow to have gone abroad that the collection of plants in this interesting garden was about to be dispersed, but this is far from being the case. Associations so tender and so hallowed cannot easily be broken, and, happily, there is no stern necessity here, as

with so many clerical homes, to bid farewell to the scene of life-long joys and sorrows. May the garden, therefore, under the fostering care of those who loved its master-spirit abide long and prosper. K. L. D.

## THE FLOWER GARDEN.

## A NOTE ON SWEET PEAS.

GROWERS of Sweet Peas had cause to complain during the greater part of June, owing to the cold and wet weather. Although sowings were made much earlier than usual, we failed to obtain anything like a free display until the first week in July. As a rule, from a later sowing than that observed in this instance we have gathered flowers quite freely during the second week in June. However, at the present time our Sweet Peas are developing blooms of superb quality. In high and dry situations such as ours the plants in late July have deteriorated considerably, and to maintain a good display copious waterings and incessant attention have been absolutely necessary. Our plants at the present time average about 7 feet high, and their growths are wonderfully strong, stronger in fact than they have ever been seen here. Our practice is to raise the plants in a genial temperature in early February, placing five or six seeds in a 5-inch pot, and subsequently carefully to harden them off and plant outdoors in April. We plant them in clumps, first taking out the soil to the depth of about 2 feet, filling in the hole with about half a barrowful of manure, and making this firm. The holes are made some 3 feet or rather more apart, this space enabling the grower to overlook and control his plants with ease. In hot and dry weather watering is regularly carried out. Each clump of plants is first watered with half a gallon of clear water, and an hour subsequently they are again treated to half a gallon of manure water. We prefer to use Ichthemic guano, and first dissolve this in boiling water. By these means the manure is more readily made a plant food, and is quickly assimilated. In a short time this generous treatment of the plants is seen in the healthy and vigorous character of their growth, and, what is of importance, the flowers are exceptionally large, brilliantly coloured, and of good form. Rarely are the flower stalks less than 12 inches long, and often more than this. For decorative uses one can appreciate to the full a good length of foot-stalk, as this enables the decorative artist to adjust each spray to advantage, so that its beauty and elegance are taken full advantage of. It is impossible to gain the same advantage with flowers having a short length of foot-stalk, and for this reason flowers of high quality should always be used for the best decorative effects.

Some varieties stand out conspicuously for their beauty and also good quality, and one of the best is Prince of Wales, a beautiful rose-pink variety. Often as many as four flowers are produced on each spray, and they are very fine. Miss Willmott is without doubt the finest of the orange-pink flowers. Lovely is still one of the best, its pale rose-pink flowers being charming. Sadie Burpee is a superb white, and stands pre-eminent above the other whites here. Salopian, the brilliant mulberry-red variety, is still valued for its fine colour and its free display, and in Mars has a serious rival for brightness and richness of colour. Prima Donna is rightly highly esteemed, both on account of the large truss and refined soft pink colour. In Duke of Westminster we have a very distinct and handsome flower, its rosy maroon and violet colouring being very good. Black Knight and Stanley are two excellent bronzy chocolate varieties, and there is little to choose between them in quality. The primrose-coloured or rather rich cream sorts are best represented by the Hon. Mrs. Kenyon and Queen Victoria. In our collection none of the others equal these two sorts. Their flowers are large and of good form, and their stalks wonderfully long and erect. A



charming sort is Hon. F. Bouverie, with coral-pink standards and wings of a lighter shade of the same colour. In bluish lavender sorts, Lady Grisel Hamilton stands well, and in a deeper shade of the same colour Emily Eckford is most distinct. A superb flower is Prince Edward of York, having bright rosy cerise standards and wings of the deepest shade of rose. A good flaked variety is Mrs. Joseph Chamberlain, being white, flaked heavily with bright rose.

D. B. CRANE.

Highgate, N.

### SMALL ROCK GARDEN AT EXETER.

THE accompanying illustration, from a photograph by Mr. F. W. Meyer, gives an excellent example of what can be done in the way of rock garden, making within a short time. The picture represents a portion of the grounds of H. A. Willey, Esq., Pennsylvania Park, Exeter, which have been recently laid out by Messrs. Robert Veitch and Son, of the Royal Nurseries, Exeter. Little more than twelve months ago this ground was practically a piece of waste, consisting principally of mounds of bare clay, of which the greater portion had to be removed before operations of rock building could be commenced. The stone used is an oolitic limestone of a pleasing light brown or yellowish colour, and freely perforated with large and small holes, some of which form excellent pockets. A very similar kind of stone may be seen in the Botanic Gardens at Bath. As this stone belongs to the sedimentary or stratified rocks, the rock building in this garden has been done on the principle of Nature—that is to say, each group of rocks distinctly shows its stratified character, but, as in Nature, even the most regular strata are sometimes rent asunder by upheavals and convulsions, which scatter the rocks in various directions, so have these artificial rocks been composed to represent a very broken and rugged surface.

In the centre of the picture may be seen a small cave filled with Ferns, &c., and forming the background of a kind of open grotto with seats. In this part some of the rocks have almost perpendicular fissures, which were planted sideways with *Saxifraga longifolia*, *Androsace chumbiensis*, *A. lanuginosa*, *A. sarmentosa*, and many kinds of *Sempervivums*, *Sedums*, &c.

A suitable background is formed with various conifers and flowering shrubs, and between these and the rocks are masses of perennials, Tree Lupins, *Cistus*, &c., while still further back carpets of *Lysimachia nummularia*, *Sedum album*, and *Cerastium* cover the ground, intermixed with *Aubrietias*, *Arabis*, *Phlox setacea*, *Lithospermum prostratum*, and other bright flowers.

The foreground of the picture shows a small pond, in which Marliac's Water Lilies are just making a good start, the banks being studded with Japanese and German Iris and other plants loving the waterside. Two prominent rocks between the pond and the



ROCK GARDEN AT PENNSYLVANIA PARK, EXETER (THE RESIDENCE OF H. A. WILLEY, ESQ.).

forementioned open grotto are planted with *Spiraea Thunbergi*, *Hieracium villosum*, *Chrysogonum virginicum*, various *Linarias*, *Antirrhinum*, &c., but the parts near the main path are adorned with choicer kinds of the more minute type, such as *Edelweiss*, *Gentiana verna*, *Dianthus alpinus*, and other gems.

The pond is fed by a streamlet forming two small waterfalls. The rocks, of course, are not continuous, but are broken here and there by grassy banks or groups of suitable plants. As may be judged from the picture reproduced the charm of the work consists in the light and natural arrangement resembling a broken up and even a somewhat scattered appearance without detriment to harmony or without losing sight of the picturesque effect of the whole. The work was designed by Mr. F. W. Meyer.

VISITOR.

## NOTES ON HARDY PLANTS

### NARCISSUS TRIANDRUS ALBUS.

REFERENCE to *N. triandrus albus* is made by "S. T." in your issue of May 31, page 351. In my research after Daffodils in Spain I found *N. triandrus albus* in all positions. One locality occurs to mind where I found it growing amongst Pine needles, shaded by the overhanging Pines, the soil very poor, and the flowers exceedingly small, and as the ground sloped down to a stream I followed the slope, the plants becoming stronger and the flowers and bulbs larger. But the largest bulbs, the strongest plants, and the finest and largest flowers were those in the water. On an island in the Bay of

Vigo in sand I found the flowers as large as those of *N. triandrus calathinus* when strong and well cultivated. In the neighbourhood of Oporto, in the fissures of granite rocks, in full sun and the bulb fully exposed and wedged into the fissures, I have seen plants with very fine flowers. The self-yellow and the two-coloured *N. triandrus* I found growing on the roadsides, and at other times amongst trees. I am of opinion pounded granite would give good results. The bulb on all occasions was but slightly covered. This elegant Daffodil should succeed well in rockwork with 2 inches or 3 inches of pounded granite in the pockets. *N. cyclamineus* is semi-aquatic, and should do well at the bottom of rockwork, and *Corbularias*, from Spain, should succeed under the same conditions. Both the yellow and citron-coloured forms, the small yellow *Corbularias* in Spain and Portugal are usually found in dry sand. I recall to mind a habitat I visited on a little island, where Pines grew in dry sand, I found a miniature yellow *Corbularia* with leaves as fine as the hairs from a horse's mane, and flowers exceedingly small, while the land around the island, covered in winter with sufficient depth of water that sportsmen punted their boats in search of snipe, the flowers there as the water receded were as large as *Corbularia conspicua*. The home of this last-named species has not yet been found. *N. juncifolius* from the Pyrenees and *N. minimus* from Spain should be valuable rock plants and useful on sloping banks.

Cape Town.

PETER BARR, V.M.H.

### CAMPANULA STANSFIELD'S HYBRID.

AMONGST several dwarf hybrid *Campanulas* which have come under my notice during the last three or four years the best for perennial cultivation on alpine rockeries is one sent me three years ago without name or parentage by Mr. Stansfield of Southport. Both in leaf and habit and flower it might be described as a magnified *C. waldsteiniana*. The flower, however, is 1 inch long and fully 1 inch across the mouth when spread out. The



colour is rich purple, and the plant begins to flower about the middle of June, when 3 inches high, and continues to produce flowers in abundance for three months, never becoming shabby or more than 6 inches high. The habit is very close, and a three year old plant from a cutting is 8 inches or 10 inches across measured at the base, and bears nearly 200 flowers open at once, fresh buds coming continually in the axils of the leaves. It seems barren, the same being my experience of all true hybrids in the genus *Campanula*, though the so-called species in the *C. rotundifolia* group cross with one another freely and their progeny continues fertile, so that it is hardly possible to keep the varieties distinct. The specimen sent is the full height from the ground.

On page 60 it is stated that *C. waldsteiniana* and *C. tommasiniana*, though botanists have made them one species, are to gardeners quite distinct. So they are if you take the extremes, but I can make them meet as series. I enclose a stalk and flower of each, between which you will see very little difference. In the specimen of *C. waldsteiniana*, which I send for comparison, it will be seen that this dwarf species has the leaves closer together in proportion and longer leaf stalks. It has also the flowers wider compared with their length, but it is a species which varies much in this particular, the flowers sometimes being so long and narrow as to approach in form those of *C. tommasiniana*, which the elder De Candolle considered a variety of *C. waldsteiniana*. C. WOLLEY-DOD.

Edge Hall, Malpas, Cheshire.

P.S.—Since writing the above I have heard from Mr. Stansfield that he believes the parents of the hybrid to be *C. tommasiniana* and *C. carpatica*. This is probable from the characters.—C. W. D.

[The specimens sent bear out what Mr. Wolley-Dod has written.—Ed.]

### LILIUM GRAYI.

THIS fine *Lilium* was to be seen in capital condition in front of the range of houses in the Royal Botanic Gardens, Edinburgh, the other day. One plant in particular was very handsome with its fine stalk from 4 feet to 5 feet high, and bearing a large number of its beautiful flowers. It is a Lily which is little cultivated in Scotland, but only wants to be better known to be more appreciated and to find its way into many northern gardens. The handsome bell-shaped flowers are of a dark rich red, prettily spotted with purple. Although reputedly one of the peat and moisture-loving Lilies, the position it occupied at Edinburgh would indicate that it is not absolutely necessary that it should have much moisture to succeed. It has been introduced for a considerable time now, and an interesting notice of it appeared in *THE GARDEN* of July 1, 1893. S. ARNOTT.

### HEUCHERA ZABELIANA.

MR. MALLET'S note on this hybrid *Heuchera* will, one hopes, draw attention to this pretty plant, which quite merits what he has said about it. It is a good grower and a free bloomer here, where it has flowered for two seasons. Two promising new *Heucheras* raised by M. Lemoine are *La Perle* and *Flambeau*, although the former is not so pure in colour as one would like. The latter is brighter than *H. zabeliana*, and approaches in hue the fine *H. sanguinea*, which one so seldom sees well grown. *H. zabeliana* has, however, larger and more open flowers. S. A.

Carsethorn, by Dumfries, N.B.

### MUSCARI COMOSUM MONSTROSUM (THE FEATHER HYACINTH).

IN going through the interesting old garden of Sir Mark J. M<sup>t</sup>. Stewart, Bart., M.P., at Southwick, Kirkcudbrightshire, the other day, I was pleased to come across the old Feather Hyacinth in quantity. It is not too often that one meets with this remarkable form of the Tufted Grape Hyacinth, and one is always pleased to see it, especially in old gardens where it must have been grown for many years. The flowers, unlike those of the

typical *M. comosum*, are all barren, and the whole inflorescence is divided into a feather-like mass of bluish violet tufts. It is a very old plant, often spoken of in the old books as "the fair curled haired Iacynth," and Rea tells us that "this is a beautiful and strange fashioned flower, and hath been of great esteem, but now grown something common." One can hardly call it common now, though it is far from plentiful. I find that it likes a more open position than the typical *M. comosum*, as if crowded up the blooms do not always open in dull and wet weather. S. ARNOTT.

### CAMASSIAS.

THE value of *Camassias* for grouping in the border, shrubbery, and in woodland, or in any situation where it is desirable that the plants should be able to take care of themselves and thrive, is slowly but surely gaining recognition, despite the drawbacks of a singularly confused nomenclature and the dearth of authoritative information about them. The genus contains five well-marked species and ten distinct plants, all being well worth growing, whilst the varieties of *C. Leichtlinii* rank among the finest and most showy bulbous plants we have. These forms of *C. Leichtlinii* and the forms of *C. esculenta* (the "Quamash" of the North-American Indians, who use the roots as food) are invariably confused in all but the most carefully-assorted stocks of *Camassias*, inasmuch that planters are not likely to be certain of getting the right kind of plants. The forms of *C. Leichtlinii* are far better than *C. esculenta* at its best; in fact, the two specific types are wide apart in decorative value, whilst the *C. esculenta* of Dutch growers, probably the old-time type that has not varied in size or colour under cultivation is, in its turn, far inferior to the major strains of *C. esculenta*, mostly fixed geographical forms and variations, now collected wild in California and sent over to this country after a year's selection and test by collector-growers. Californian bulbous plants, by the way, do not sport colour forms and variations under cultivation at the same rate as do plants from other countries, the great wealth of varieties being due mainly to the diversity of climate, for the rule of "one district, one type" prevails to a marked degree. All *Camassias* are hardy, nevertheless.

*C. Cusickii* (S. Watson), a strong-growing plant, with an inflorescence like that of *Eremurus*, and broad glaucous leafage of bold outline, is universally admired. The spikes attain a height of 4 feet, and are densely clothed for some 2 feet of their length with upwards of 100 sky-blue or lavender self-coloured flowers closely packed together, *Eremurus* fashion, the bristling yellow anthers being very conspicuous. The individual flowers are starlike, an inch across, and regular, the petals being equidistant and similar in length and breadth. The leafage is very glaucous, above an inch wide, more often two, and fully 2 feet in length. It is the earliest to flower, and it is on this account desirable to plant this species in a warm situation, or late frosts will spoil any flowers that may be in an advanced state. In ordinary seasons the inflorescence is not injured, but seasons like that of 1902, which have so far proved destructive to many floral displays, may again be experienced. The leafage is more frequently cut somewhat by frosty winds, but that does not harm the plant or spoil its beauty to any appreciable extent.

*C. esculenta* (Lindl.) is a low-growing plant 18 inches high as a maximum. It has thin linear leaves, and from twenty to thirty flowers coloured blue or purplish blue, each an inch across, the upper five petals ascending and slightly falcate, aggregating together so as to isolate the lower petal, which is boat-shaped and slightly incurved, showing in this respect a marked resemblance to many exotic *Amaryllids*. The petals as they wither droop independently, leaving the capsule free of any covering. Several recently collected forms of this plant, as yet without distinctive names, are real improvements worthy of a place in any garden. The type plant, though effective in the mass, falls short of many of the good features of other species, and one has become

accustomed to regard it as too poor for border planting, but excellent for the wild garden and for planting in stretches of grass land by the thousand. It is cheap enough to admit of extensive planting for a reasonable outlay, and it proves satisfactory in all but poor soils. Alba, a charming variety and a rarity, should find a place in the choice bulb border. Mr. Carl Purdy, in a valuable letter sent to Messrs. Wallace, of Colechester, cites five geographical forms, varying in height and colour, together with the following information: "*C. esculenta* has petals of unequal size, and five of the segments are on one side and one on the other. When the flower wilts the segments fall down irregularly below the capsule. The size of the plants and number of flowers is of no value in separating the species; there are low-growing few-flowered forms of *C. Leichtlinii* and very tall *C. esculenta*. The largest *C. esculenta*, however, never equal the largest *C. Leichtlinii*, while *C. Leichtlinii* is a fuller and larger flower. *C. Leichtlinii* has broad petals, and the flower is nearly regular in shape; when the petals wilt and fade they twist above the capsule like bon-bons."

*C. Leichtlinii* (S. Watson) is a variable but very beautiful plant of great garden value. Its distinctive characters are readily apparent when grown side by side with *C. esculenta*, but a difficulty arises as to which of the five forms comprised in the species should be accepted as the type. Watson's *C. Leichtlinii*, according to Mr. Purdy, was blue-flowered, but the *C. Leichtlinii* of horticulture, the original plants sent to Europe, of which I have quantities under cultivation, are cream-coloured. This type is now generally known as *C. Leichtlinii*, and it appears desirable to regard it as the typical plant, despite the fact that, according to Mr. Purdy, "no cream-coloured *C. Leichtlinii* have been found in British Columbia since Jeffries' time (1850). It has leaves 1 foot long, and strong, bold spikes 3 feet to 4 feet high, bearing from 50 to 100 cream-coloured flowers 1 inch to 2 inches across, with lanceolate petals regularly disposed and equidistant, a median line of olive running down the centre of each. The flowers are not so crowded as in *C. Cusickii*, but are evenly distributed on fully 2 feet of the spike in a light, graceful array. The styles and stamens project at several angles from the flowers, adding greatly to the fine effect they give. The petals as they fade roll themselves neatly over and beyond the capsule, so that the flower spikes have a much more tidy appearance than is the case with *C. esculenta*, which always looks ragged below owing to the ragged parts of the flower hanging about it. Alba, a pure white-flowered form with porcelain-tinted filaments, is a magnificent plant, the flowers glistening as though frosted. *Atrocærulea*, a dark blue-coloured form, with broad petalled star-like flowers of fine size and much substance, is in many respects the finest of all *Camassias*; it is stouter and taller than the type, and the flowers average nearly 2 inches across. These three forms are the best of all *C. Leichtlinii* as yet discovered; they are highly effective garden plants of unusual merit. Those interested in plant phenomena will find study in timing the flowers as they open; it will be found that each day's quota of flowers open at 3.40 p.m., conditions of weather making but little difference to them.

*C. montanum* (Hort.), a bright blue-flowered species midway between *C. Leichtlinii* and *C. esculenta*, produces dense *Eremurus*-like spikes bearing forty to sixty flowers an inch across, the petals of which are bluntly lanceolate, falcate, and slightly involute, five of which ascend as in *esculenta*, but the withered petals roll together, enclosing the capsule as in *C. Leichtlinii*. The anthers are very large, coloured a bright yellow, the filaments being of a porcelain-blue. It is a very pretty species of compact habit, a much neater, bigger, and better plant than *C. esculenta*, but it lacks the tall commanding grace of *C. Leichtlinii*. It is the latest of all to flower.

*C. Fraseri* (Torr.)—The only remaining species known to me is a comparatively slender plant 18 inches high, bearing pale porcelain-blue flowers

\* The American distributor of this plant.



under an inch across, and closely arranged on the stem, resembling montanum in many respects, but fewer flowered and a much more slender grower.

Cultivation, independently of propagation, scarcely needs consideration with *Camassias*; they will grow well anywhere in soils of good tilth. The main feature is to select a place where they will appear to the best advantage. It is necessary to plant the tall-growing species in colonies of several; a single *Camassia* looks as odd as a single Lily, whilst the smaller species may be employed for naturalising in quantity, a use for which they are particularly fitted, as we have no kindred plants suitable for this purpose flowering in May and June, save a very few. *Camassias* do not produce offsets very freely, but they may be raised by the thousand from seeds, seedlings attaining maturity in the fourth and fifth year; a few, however, may flower earlier, especially if sown in boxes as soon as ripe and introduced to heat, thereby gaining a whole season.

GEORGE B. MALLETT.

## TREES AND SHRUBS.

### TENDER SHRUBS AND TREES IN THE SOUTH-WEST.

(Continued from page 81.)

**CORYNOCARPUS LEVIGATA.**—New Zealand. An evergreen tree bearing panicles of white flowers, followed by Plum-like fruit. A healthy young plant is at Ludgvan Rectory.

*Crinodendron Hookeri* (*Tricuspidaria hexapetala*).—Chili. A particularly handsome shrub growing to a height of 5 feet, bearing large, drooping, cherry-red, urn-shaped flowers on long peduncles, the petals being very firm in texture. In many gardens.

*Cytisus racemosus.*—Peak of Teneriffe. One of the commonest and most popular greenhouse plants. It grows to 8 feet or 10 feet in height in the south-west and often flowers until Christmas.

*Daphne indica.*—India. Both the white and purple-red form of this fragrant plant are common in the open in Devon and Cornwall, and in mild seasons commence to bloom in January. Some old plants have formed large bushes in front of walls.

*Daphniphyllum glaucescens.*—China. Evergreen. This is probably hardy, but is uncommon. The largest specimen I know is at Trewidden, and is 12 feet in height and 20 feet in spread. It has long shining leaves, the young shoots being red in colour; these, early in April, were surrounded by closely-clustered maroon-red flower-buds.

*Datura sanguinea.*—Peru. This grows to a large size in the south-west, often forming a tree 12 feet or more in height, and in mild winters blooming until February. *D. suaveolens* (Mexico) is probably more tender, as such large specimens are rarely seen.

*Dendromecon rigidus.*—California. A handsome shrub with glaucous leaves, the branchlets terminated by bright yellow Poppy-like flowers. It succeeds best in poor soil that does not induce vigorous growth. Enys.

*Desfontainea spinosa.*—Chili. A most distinct evergreen shrub, with leaves resembling those of a Holly. It bears tubular flowers 3 inches in length, of a bright vermilion, tipped with yellow, and is a very handsome object when in full flower. It commences to bloom in the summer, and often holds many of its flowers until November. The largest specimen I have met with was about 8 feet in height, and was in the neighbourhood of Teignmouth. The *Desfontainea* is to be found in most gardens.

*Diosma ericoides.*—South Africa. A Heath-like evergreen shrub, bearing

single white flowers not unlike those of a Myrtle. Its leaves are fragrant when bruised. A healthy plant, about 4 feet by 4 feet, trained against a wall was coming into bloom at Tregothnan at the end of March.

*Diospyros Kaki.*—The Persimmon. China. This is hardy, but rarely fruits except in the south-west. A tree at Bishop's Teignton produced fruit, which ripened well in 1890. In autumn the colouring of its foliage is very attractive.

*Drimys* (*Tasmannia*) *aromatica.*—Tasmania. An evergreen shrub or small tree bearing tiny white flowers in spring. Its leaves if bitten are very pungent, stinging the palate like pepper. The finest specimen I know is one 15 feet in height at Menabilly. *D. Winteri.* South America. A handsome flowering shrub bearing ivory-yellow, fragrant flowers an inch across. At Bishop's Teignton there is a good example over 12 feet in height. Both species are fairly well distributed in gardens.

*Dryobalanops aromatica.*—Sumatra. The Camphor Tree. There is at Penjerrick a good specimen 20 feet in height.

*Edwardsia grandiflora* syn. *Sophora tetraptera* (the New Zealand Laburnum).—This and its variety *E. microphylla* bear racemes of yellow flowers, the individual blooms being 2 inches long in the first case and about half that length in the second in the spring. Examples 10 feet or so in height are to be found in some gardens.

*Embothrium coccineum.*—South America. The Fire Bush. The most brilliant of all flowering trees capable of outdoor culture in this country. In May every twig is laden with clusters of long flowers of glowing scarlet, the trees presenting a most gorgeous spectacle. Every good garden in Cornwall, and most in South Devon, possess specimens, some containing a dozen or more. The finest are probably at Trewidden and Penjerrick, where they are 30 feet in height and as much in spread.

*Eriostemon buxifolius.*—Australia. A small evergreen shrub, bearing pink flowers in the spring. Treseo.

*Escallonia illinita.*—Chili. Bears white flowers in July. There is one 15 feet high at Menabilly. *E. revoluta.*—Chili. Bears white flowers three-quarters of an inch long in August, 20 feet high, Menabilly. *E. organensis.*—Organ Mountains. Bears rose-coloured flowers. Fine specimens in more than one garden. *E. floribunda.*—Monte Video. Bears fragrant white flowers in August. Common in the south-west.

*Eucalypti.*—Australia. Some thirty or forty species are grown, of which perhaps the best known are *E. Globulus*, which has attained a height of 50 feet; *E. Gunnii*, 40 feet; *E. citriodora*, 20 feet, against the house at Tregothnan; *E. amygdalina*, *E. cordata*, &c. Many flower freely and bear fertile seed.

*Eucryphia pinnatifolia.*—Chili. A beautiful deciduous flowering shrub, bearing large white flowers like a St. John's Wort, with bright yellow anthers. A specimen at Trewidden is 8 feet in height.

S. W. FITZHERBERT.

(To be continued.)

### TWO GOOD SHRUBS.

#### GENISTA HISPANICA.

WHEN well grown this is one of the best and most ornamental of the dwarf *Genistas*, and it is a plant which should be found a place in every garden. It has been known under a variety of names, and is still occasionally met with as *Ulex* or *Spartium hispanicum*. In general appearance it differs from most of the other *Genistas* by its dense rounded habit, isolated plants growing naturally into compact rounded bushes 1½ feet to 2 feet high and 3 feet or more in diameter. The popular names Spanish *Genista* or Dwarf Spanish Broom suggest its native country, it being fairly plentiful through Spain, and from there to the south of France. It appears to have been introduced in the first instance in 1759, but it does not seem to have been cultivated to a very great extent. The branches are thin, covered with rigid, branched spines, and sparsely clothed with small, lanceolate leaves. The flowers are golden yellow, borne in terminal, flattened racemes, and completely cover the plants about the latter end of June and early part of July. With regard to soil it is not fastidious, that of a fairly light, loamy character being most suitable. When planting plenty of room should be left between the plants so that when mature each plant stands clear of its neighbour. This is a point worth attention, as in beds where the plants have grown into one thick mass the plants in the centre of the bed are often injured in winter by insufficient air being able to get



THE DWARF SPANISH BROOM (GENISTA HISPANICA) IN A SURREY GARDEN.



to them. Propagation may be effected by means of cuttings inserted in sandy soil in a close cold frame in August. W. D.

#### OLEARIA MACRODONTA.

This is one of the most handsome of all shrubs, but is happiest in the southern counties of England and in Ireland, at least this is my experience. It is beautiful both in leaf and in flower. In New Zealand it is used as a hedge plant. I remember a note about it in *THE GARDEN* of August 17, 1900, page 119, where it is mentioned by Mr. C. H. Treadwell that it makes "an excellent hedge, admired by most of the visitors to my garden. The flowers are similar to those of *O. Cunninghamii*, though not so bright or showy. My hedge is about 4 feet high, and though individual plants have flowered, I have not seen it in bloom at one time. When this happens it will be a beautiful sight."

### TREES AND SHRUBS FOR ENGLISH GARDENS.

(Continued from page 44.)

#### CONIFERS.

ALTHOUGH a few conifers are deciduous, such as the Maidenhair Tree (*Ginkgo biloba*), *Taxodium distichum*, the Golden Larch (*Pseudolarix Kämpferi*), and the true Larches, the great bulk of the family consists of evergreens. It is to the coniferæ, indeed, that belong the only hardy evergreen trees which in stature and size rival the large deciduous trees of cool temperate latitudes. Although our only native conifers are the Yew, the Scotch Pine, and the Juniper, there is a sufficient variety of soil and climate within the limits of the British Isles to provide suitable conditions for nearly the whole of the family. It is only a few subtropical species that cannot be accommodated. This does not imply that the whole of the hardy conifers can be grown satisfactorily in any one place. In even the best conifer localities there are some species that will not reach perfection, and in the general run of gardens there is a considerable proportion of species about which the same has to be said. This fact, however, has often been overlooked. The extreme popularity of conifers, which was at its height from forty to fifty years ago, undoubtedly led to the enriching of the parks and gardens of this country with what are now, in many instances, magnificent specimens. To realise how great that enrichment was, one has only to mention such places as Dropmore, Murthly Castle, Ochtertyre. But conifer planting, from both artistic and merely cultural points of view, was overdone. Conifers began to fill an undue proportion of space in gardens, and displaced to a large extent the beautiful flower-bearing deciduous vegetation whose seasonable variations give such charm and interest. With all their symmetry and richness of hue, the popular species of *Abies* and *Picea* often have a heavy, even sombre aspect. Heavy masses of Pine, Spruce, and Fir can never give that changing aspect in the

landscape that comes with deciduous vegetation. The tender tints of spring, the flowers, the gold and purple of autumn, it is to these that the seasons of our northern latitudes owe their greatest delights.

Perhaps the worst of all the uses to which conifers have been put is that of forming long avenues across parks. It is difficult to understand the frame of mind that would prefer rows of *Araucaria*, *Abies nobilis*, or other similar things—however well grown and pyramidal they might be—to a noble vista of Chestnut, Oak, or Lime, with its canopy of branch and foliage overhead. Conifers can,

trees is more stately and picturesque than the Cedar of Lebanon. How much do we of the present day owe to those who a century or more ago planted this tree so abundantly in this country!

Before planting conifers largely in any garden where they are to be grown for their purely ornamental qualities, a study should be made of the species planted in other gardens where the conditions as to soil, moisture, and altitude are similar. On the peaty formations in Surrey and Hampshire where *Rhododendrons* succeed so well, many conifers thrive exceedingly well also. The common Spruce and its allies are nearly all failures on light dry soil, especially where the subsoil is gravel. In places, however, where the Spruces fail, the common Larch and the Lawson Cypress succeed well. In chalk districts many conifers refuse to grow, but the following are among those that thrive: *Abies magnifica*, *nobilis*, *nordmanniana*, and *Pinsapo*, the Cedars, *Cupressus lawsoniana*, *macrocarpa*, and *nootkatensis*, the Maidenhair Tree, the Junipers, the Thuyas, the Yews, and the following Pines: *Pinus Laricio* and *austriaca*, the Scotch Pine, *P. excelsa*, and *P. Pinaster*. Most of the Pines, too, are happy on gravelly or stony ground.

Near the sea, that is, in positions exposed to the direct force of salt-laden winds, there is not a large number of conifers to select from, but the following have been found to succeed best: *Pinus insignis*, *P. muricata*, *P. sylvestris*, *P. Laricio*, *P. austriaca*, *P. inops*, *P. contorta*, and *P. montana*, *Juniperus communis*, and *Cupressus macrocarpa*. In damp or boggy places the deciduous Cypress (*Taxodium distichum*) is a most valuable tree. Its soft feathery verdure is most beautiful in summer, and in autumn it dies off into lovely shades of orange and red-brown.

The conifer family is especially noteworthy for the way many of its species vary. Not only is this propensity evidenced in such characters as the colour of the leaf and the differences in habit; it shows itself more remarkably sometimes in the form and texture of the leaf and mode of branching. So great is the difference between some forms of certain species of conifers that they have been placed in

different genera. What are generally known as *Retinosporas*, for instance, are really nothing more than forms, "states" the botanists term them, assumed by various species of *Thuya* and *Cupressus*. Strictly speaking, *Retinospora* has no separate existence as a genus. This, however, is a botanical phase of the matter. Horticulturally we are more concerned with such variations as adapt the plants to various garden purposes. Many quaint and dainty forms of large trees are very suitable for the rockery in association with alpine plants. The common Spruce, for instance, has given birth to many pinyon forms. The Yew, the Scotch Pine, and various others have "sported" in a similar way. But no hardy tree varies so



OLEARIA MACRODONTA IN MESSRS. GAUNTLETT AND CO.'S NURSERY AT REDRUTH.

however, be used very effectively for forming short avenues within the garden itself, especially in the more trimly-kept parts.

The practice that is frequently adopted of forming a pinetum and bringing together the members of this family in one part of the grounds is a very good one. It is far better than sprinkling them thickly but indiscriminately over the whole garden. At the same time, where sufficient space is not available for the formation of a pinetum they may be used in their proper proportion with other evergreens in various parts of the garden. Single fine specimens on lawns of *Abies*, *Picea*, and of many other genera are always effective, and nothing in the whole range of native or foreign





PEDICULARIS FOLIOSA

(LIFE SIZE).

much, perhaps, as the Lawson Cypress when raised from seed. The species has assumed almost every shade of colour that conifers do assume, and every form of growth. Beautiful golden, variegated, pendulous and erect varieties have been raised, and not only from the Lawson Cypress, but from many other conifers also. The golden Yews, the yellow form of the Monterey Cypress, and the golden variety of the Scotch Pine, may be recommended to those who require this colour, although in the Pine it only shows itself in winter. The blue-white or glaucous hue that is more or less present in most conifers, shows itself most conspicuously in the Blue Spruce (*Picea pungens glauca*), in *Cedrus atlantica glauca*, in the new Cork Fir from Arizona (*Abies lasiocarpa* var. *arizonica*), and in *Abies concolor violacea*. W. J. BEAN.

(To be continued.)

## MOUNTAIN FLOWERS.—II.

At an altitude of 6,000 feet one is in the region of true alpine vegetation. Here, at the Rochers de Naye, at that height above sea-level, and just over the north-eastern end of the Lake of Geneva, a good proportion of the vegetation proper to the elevation may be studied and enjoyed. Close to the terminus of the local branch of the little alpine railway are two great slopes facing respectively approximately north and south. It is strange to see how absolutely different is the vegetation on the two exposures. The northward slope, grassy towards the valley bottom but rocky above, is crowned with massive heights of limestone standing up whitened and weathered and looking at a distance, except for the uneven spaces of their actual tops, as if they were bare of all vegetation. But at the foot of these crags, among the piles of broken rock, and in the steep slopes of

rock and grass close by, is a happy wandering ground for anyone who has a little knowledge of, and a great love for, mountain plants, while the rifts and fissures of the giant upper rocks are like the most perfectly planted alpine garden.

Visible everywhere from its bright white flowers, with their pretty centres of yellow anthers and neat glossy foliage, is *Ranunculus alpestris*, sometimes in the grass, but most striking in narrow, upright rifts of the calcareous rock, whose stratification is here absolutely perpendicular. A little dark humus gathers in

the damp rift, from which moisture seems always to ooze, then comes a pad of short moss and then the pretty little *Ranunculus*, so that the whole fissure for some feet in height is studded and starred with its charming bloom. Two dainty Ferns, *Cystopteris fragilis* and *Cystopteris alpina*, nestle in deep cushions of moss among the chaos of broken rocks, and in one slightly overhanging rift is the oddest looking row of the greasy feeling stars of *Pinguicula*, not in flower. Neat cushions of *Silene acaulis*, with roots thrust deep into the rocky cleft, spread happily over the stony surface and show us what to do in our rock gardens. Indeed, this whole region is a precious lesson in good rock gardening. Where a rocky mass has little rounded pits, there the soil gathers and makes the home of some neat little silvery *Saxifrage* or of a tuft of *S. oppositifolia*, here excessively minute in size. A thousand feet lower the same plant is of normal size.

The heads of the great rock masses, in most cases inaccessible, have a hoary growth of the dwarf *Juniperus nanus* and short grasses, but a note of bright colour is given by the pink-bloomed tufts of *Melandrium rubrum*, having at a distance something the effect of tufts of Thrift of a brighter and better tone of pink. The accessible slopes have the same Juniper and *Rhododendron ferrugineum* and brilliant jewels of *Gentiana verna* and boldly pictorial masses of the foliage of *Laserpition Siler*, with occasional plants of *Daphne Mezereon* and *Thalictrum aquilegifolium*.

Everywhere upon the northern facing slopes is *Anemone alpina* with its large bloom and feathery foliage, and with it *A. narcissiflora*. It is good to see the white flowers of *Anemone alpina* in sunlight against the cold grey of the limestone rock in shade. Neither this nor its constant companion *A. narcissiflora* are pure white in colour; both have a slight creamy tinge. In *A. narcissiflora* the clustered buds

have a rosy stain that makes them look something like a little bunch of fruits nestling in a ring of bracts, but in *alpina* the buds of the solitary blooms are of a wonderful bluish colour, like faintly blued steel with a greenish tinge.

*Dryas octopetala* is very frequent and, with the two prostrate dwarf willows, *Salix herbacea* and *S. reticulata*, forms a large part of the covering of the smaller rocks on the steep slope. It likes to be seated on the top of a rock, with its woody stems thrust deep down into a rift and to spread out its sheets of neat glossy foliage, and to send them hanging down the rock face sometimes as much as a yard. Lifting up such a mass of living drapery, one finds a thickish pad of living and dead moss and humus, through which little rootlets of the *Dryas* pass to lick the cool moist surface of the rock below.

Coming to another pile of great rocks there are again other plants that we treasure in our gardens, and that here we can learn how best to grow—two *Campanulas*, *C. caespitosa* and *C. pusilla*, both tightly rooted into rock clefts, with *Primula Auricula* and *Veronica saxatilis* in exactly the same positions.

Besides the two white *Anemones* in the broken ground just below the larger rock masses the most frequent plants are the Globe flowers, *Alchemilla alpina* and *Horminum alpinum*, whose small yet handsome rounded leaves of firm texture always seem to promise a better flower than the disappointing one that accompanies them.

Though it is well on in July the snow still lies in the hollows of the northward slopes, in places as much as 9 feet deep, and even in



VIOLA CALCARATA (LIFE SIZE).



some hollows that face the south. Each pool or drift of snow is edged with a space of brown turf where the grass has not yet recovered, and through this brown turf, and even through the edge of the snow itself come the flowers of the brave little *Soldanella*, so difficult to bloom in England. The pretty little nodding flowers of a bluish lilac colour, with their reddish stems and fringe-edged petals, are in such quantities that one cannot help treading them under foot. There is one other plant of the upper part of the northward slope that takes the lead of all others where it occurs in fairly plentiful patches. I had never before seen it at home and just in perfection, but as it grows on these heights, *Primula elatior* is a plant of distinguished beauty. The yellow of its petals is of a tender and luminous quality; it is not the greenish yellow of our English *Primrose* nor yet the colour of the *Cowslip*, and is not quite so bright as *P. sikkimensis*, though reminding one a little of the colour effect of that beautiful himalayan, but it has a tender purity of its own that is infinitely charming and that is most becomingly accompanied by the pale green of its boldly wrinkled leaves. The wild *Oxlip* that we sometimes find at home, and that is a natural hybrid of *Primrose* and *Cowslip*, is a very poor thing compared to this beautiful species of the Alps, though I believe it goes by the same name and is commonly confounded with it in gardens.

The steep grassy slope that faces the south is thickly studded with the bright deep purple bloom of the scentless *Viola calcarata*. It has something in common with *Viola cornuta*, as it has the long spur that is one of the characters of the latter, but this is a plant of the Pyrenees. In this handsome alpine *Violet* the colour sometimes varies to a bright red-purple such as one sees in some of the varieties of English *Iris*, but, as a rule, there is very little variation to the paler shades. The foliage is small and mostly hidden in the grass. *Hedysarum obscurum* makes handsome masses of bright magenta-crimson bloom, and the same colour, of a rather better quality, is taken up by a showy crimson *Pedicularis*. Where a fair depth of soil has collected *P. foliosa* also is a remarkably handsome plant, with its closely-flowered heads 3 inches to 4 inches long of pure pale lemon-coloured bloom with deeper coloured lip. *Centaurea montana* is also at home here, the flower looking a little thin from one's eye being accustomed to the fuller garden kinds.

*Anthyllis Vulneraria* is everywhere. Though it is also a wild English plant, it is so bright, with its round heads of cheerful yellow bloom, that one thinks it should be used in the rougher parts of pleasure grounds or wherever there may be bare banks of chalky soil.

*Geranium sylvaticum* is a handsome thing in these mountains, densely flowered and brilliantly coloured with its own fine purple. *Myosotis sylvestris* is everywhere, of a rather deeper colour than is usual in gardens, but it seems to do itself an injustice from its habit of growing in isolated plants, giving only one or two sprays of bloom. Probably from the

recollection of its use in beds or groups in gardens one expects to see it in more thickly flowered masses.

The pale clear lemon colour of the rather pretty crucifer, *Biscutella lævigata*, is conspicuous at the top of the sunny slope, where grass gives place to rocky backbone that ends in a jagged edge with sheer descent of bare mountain side to the north. The extreme edge is tempting, though dangerous; small, well-bloomed tufts of the mountain flowers are just out of reach over the edge, all the more flowery and tufted because they root into the cracks of the bare limestone and are not made proud of growth by the deeper soil of the grassy slope. But, though these are tempting to look at, their counterparts may be found in safer places a couple of yards further back. Here is *Phaca astragalina*, a neat white-flowered leguminous plant, and the pretty dwarf white-flowered *Polygonum viviparum* and quantities of the neat little *Globularia cordifolia*.

The little *Orchid Nigritella angustifolia* sends up its modest spike here and there in the grass and *Phyteuma orbiculare* is fairly common.

The flowers are so engrossing that for a time one forgets the glorious landscape, the range upon range to east and south, and the many snow-capped giants; the eastward half of the immense lake lying like a map below; the glory of wondrous colour as cloud masses throw their shadows over summit and hollow; the wonder of the pure air that feels like inhaling new life; all this one almost forgets in the delight of searching for and gladly greeting the jewels of flower beauty that lie at one's feet.

G. J.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### LILIES IN PAILS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The failure of Lilies in the open ground, which appears to be somewhat general this year, and to which reference was made in *THE GARDEN*, July 19, page 37, recalls an example of Lily growing in pails lately brought to my notice in South Devon. Being greatly interested in the strong, healthy growth and numerous flower-buds of these particular Lilies—principally *L. longiflorum* and *L. speciosum*, it is true—their owner, who is a zealous gardener, explained that the bulbs had been grown for several seasons, without replanting, in the same wooden pails in which I saw them, which were, in fact, nothing more nor less than lard tubs, bought at a grocer's for fourpence each, painted at home, and furnished with a strong but simple handle at each side.

The pails were well-drained and the bulbs carefully planted in suitable compost to begin with, and afterwards had not been disturbed further than by making room for a good top-dressing of rich soil every spring. The pails were standing, when I saw them, in partial shade on a broad terrace walk in front of an old-fashioned country house, and could not fail to arrest the attention of the most casual observer by their unusual vigour. I was told that when flowering was over they were removed to the kitchen garden to complete their growth, and when the leaves and stems had died off the pails were

wintered without further ado under the stage of a cold greenhouse, or sometimes in a convenient room used as an amateur workshop. Practical hints of this kind are sometimes useful, and the



RANUNCULUS ALPESTRIS IN A VERTICAL LIMESTONE FISSURE (TWO-THIRDS LIFE SIZE).

ease with which they can be moved and stacked gives these pails an advantage over large pots, or the paraffin tubs, sawn in half, which are also invaluable for many garden purposes. The conditions of culture being under more ready control



is probably the secret of the remarkable well-doing of the Lilies in question, but the fact that Lilies of all garden kinds are not so happy as usual this season in many South Devon gardens made them more noteworthy. K. L. D.

## APPLE TREES ON THEIR OWN ROOTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am anxious to find out if Apple trees can be kept dwarf or reasonably small on their own roots by proper pruning, and if it would be a profitable undertaking to cultivate them thus. In THE GARDEN (page 427) there is a short notice of Apple Bramley's Seedling, by Mr. J. Ward, where he hints that early fruiting trees may be profitably grown on their own stocks, as he condemns the Paradise and speaks favourably of the seedling stock, which I suppose means Apple stock. Should you be in a position to state in a few words if it is feasible and practicable to grow fruit trees on their own stocks for market fruits, I shall be very thankful. I have a small orchard of 500 Peach trees, near Boston, kept dwarf by pruning, that are first-rate. I now desire to put out some twenty or thirty acres of Apples and Pears if I can keep them dwarf on their own stocks. If this is not profitable to do I must not do it.

Philadelphia.

ELI E. JOSSELYN.

[All Apples and Pears in England are grafted or budded on one stock or another. None are grown from seeds as permanent trees for fruiting on their own roots, and this no doubt was the reason of this subject not being mentioned in the book you named. Apples grown on own-root trees from seed without budding or grafting would produce fruiting trees perhaps as quickly as those grafted on other stocks, but no dependence could be placed on the variety coming true. The chances are that instead of the variety sown reproducing itself, a mixed and medley progeny would be the result. Moreover, not more than half the young seedlings could be utilised for planting; only the strong and clean-stemmed ones. The uncertainty of the varieties coming true by this manner of propagation is of itself a sufficient reason to place the practice entirely out of court.]

The stocks used for grafting the Apple are the following: The Crab, the Apple, and the English Paradise. The best of the seedlings will be fit for grafting the third year after sowing. For the planting of trees in orchards, or in any position where it is intended for them to develop into large trees, the Crab stock, as being strong and deep-rooting, is considered the best. The Apple stock is recommended for those grown as bushes, and which in this country are usually planted at from 10 feet to 12 feet apart each way, and especially for such free-fruited varieties as Lane's Prince Albert, Stirling Castle, Lord Suffield, Lord Derby, and Cox's Orange Pippin; in fact, all the free-fruited varieties. The English—not French—Paradise stock is used as a stock for those varieties which are a long time in bearing fruit after planting, such as Blenheim Orange, Bramley's Seedling, Newton Wonder (one of the largest, most handsome, and best of late Apples), or any variety it is specially desired to bring into early fertility. A planter contemplating the planting of twenty acres would be well advised to plant maiden trees (one year after grafting) of approved sorts on free, healthy stocks than to attempt to grow trees on their own roots. The price for those worked trees when bought by the thousand is exceedingly low.

As regards the possibility of keeping Apple trees dwarf by pruning, whether on their own roots or on other stocks, no doubt this is quite possible, and especially so when the trees are grown on the surface-rooting Paradise stock; indeed, it is possible by intelligent and effective pruning on whichever stock it may be planted. The objective of the scientific culture of fruit trees is a speedy return of good crops of best quality fruit that will command the best price in the market. In attaining this objective pruning plays a very

important part. We must bear in mind, in the first place, that the well ripening of the wood and the fruit-bearing buds of the tree is essential before success can be hoped for, and in order that this may be effectively accomplished the branches of the trees must be disposed sufficiently wide apart to allow the sun and air to exercise their influence in developing and ripening growth, therefore overcrowding of branches must be guarded against by timely and judicious pruning. If the thinning out of the branches is neglected and growth allowed to become so thick in the tree that light and air are excluded, then a soft, immature, and fruitless growth is the result, and no amount of pruning can keep such trees within reasonable bounds.

When a tree has been brought to a constant and heavy fruit-bearing condition by ample and judicious winter and summer pruning, then fertility is secured, and this condition as long as it continues will effectually maintain the frame of the tree within moderate limits for many years, and only moderate or very little pruning will be necessary. —ED.]

## SEASIDE PLANTING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In one list of trees I see Silver Fir recommended as suitable for seaside planting. Does this mean all the kinds of Silver Firs that are generally listed as Piceas, and would it include the two Spruces, *Abies parryana glauca* (or Colorado Blue Spruce) and *Abies parryana Engelmanni*? I should very much like to know of a few of the best varieties of such trees that would do three-quarters of a mile from the sea, 100 feet above it, exposed position near Deal, soil about 2 feet light loam on chalk.

Folkestone.

WM. B. WELCH.

[None of the Silver Firs (*Abies*) or Spruces (*Picea*) are good trees for planting at the seaside, unless there is sufficient shelter to break the force of the wind, and even then there are very few that will succeed. The species most suitable for planting where there is a thick outer belt are *Abies nobilis*, *A. lasiocarpa*, *A. nordmanniana*, and *A. pectinata*, the common Silver Fir. Of the Spruces *Picea nigra* and *alba*, the North American Spruces, succeed better than the Norway Spruce, *P. excelsa*, but these, like the Silver Firs, must have the shelter of a good wind break; *Picea parryana*, *pungens* and *Engelmanni* will not succeed in exposed places, even in inland localities, and fail entirely by the sea. The conifers that will thrive by the sea are very few, and probably not more than half a dozen kinds are reliable. The finest of all is undoubtedly *Pinus Pinaster*, which is essentially a seacoast Pine, revelling in storms and sprays. *P. maritima*, closely allied, is equally suitable. Then, for warmer parts, is the Aleppo Pine (*P. halepensis*), but which cannot be relied on, except on southern and warm coasts. *P. insignis* is somewhat hardier, and stands the sea gales fairly well, and *P. austriaca*, and its relative, *P. Laricio*, are both reliable, and specially for making the first barrier against the winds. The hardy Scotch Pine (*P. sylvestris*), if planted in large masses, grows well but does not luxuriate close to the sea, and is especially liable to be browned in foliage by the salt spray.

Besides the Pines the finest of all conifers is the Monterey Cypress (*Cupressus macrocarpa*), which one sees hardy everywhere on the coast in these islands, and which grows finer than it does in its home on the Pacific coast. It makes a fine front barrier against the wind, especially when mixed with the foregoing Pines. The variety *C. lambertiana* is equally reliable. There are two other conifers which, though not much planted by the sea coast, will, I believe, prove reliable; these are *Cedrus atlantica* and *Thuja gigantea* (sometimes called *T. Lobbii*). I should plant these without hesitation, knowing, as I do, their hardy natures. A third conifer that I have seen doing well by the sea is *Abies Pinsapo*, and I recommend your correspondent to plant it on his chalky soil at Deal, but he must provide a temporary shelter for

it in its small state. This subject of seaside planting—the most difficult in a tree planter's practice—is such an important one, especially in its details, that it cannot be dealt with in a note, but what I have stated may be of service.—W. G., *Kew*.]

## GRAFTING TREE PÆONIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Referring to Mr. Arnold's remarks on "Tree Pæonies," page 292, May 3, I saw while in Japan a garden of Tree Pæonies, said to be at least 100 years old, and they had a very rugged look. To have layered from such would have been a rather difficult operation. At Osaka, I was fortunate in my visit to see what Mr. Unger describes as the finest collection of these plants in Japan. None of the plants were large, and I presumed these were the plants for the sale of 1899, after being divested of every scrap of wood that could be used for grafting, leaving the regulation three flower buds. These growers are not paid very much for their plants, at least so one would judge from dress and general appearance of the men, and if they can get saleable plants in two years by grafting instead of four or five years by layering it is a consideration. I see, however, no reason why the graft should not be as low as possible on the stock. I shall have occasion to write to some of the leading exporters, and will put the subject before them of grafting as low as possible. I see no reason, if the graft is buried, why the plant should not root above the graft. It should also be borne in mind that the source of supply is an important factor as regards quality. There are careless growers in Japan as elsewhere, and the careful man who does an export trade, has only dealings with careful growers, who are generally also raisers of new varieties. Anyone visiting Japan when the Tree Pæonies are in bloom are welcomed by the owners, who put up a notice of invitation when any special flower is at its best. In the case of Iris, tea houses are erected in commanding spots, and these places are much frequented, the visitors drinking tea or hot saki, a drink resembling sherry, which is made from rice. It affects the legs before it affects the head. The great distilleries are at Osaka, where the best Tree Pæonies are grown.

Cape Town.

PETER BARR, V.M.H.

## THE FRUIT GARDEN. PROPAGATION OF THE PINE-APPLE.

PROPAGATION of the Pine-apple may be effected in four ways, either by rooting the crown of the fruit, the suckers, by cutting off the stem and rooting the shoots that will arise from it, or by seed. Undoubtedly the best of all the methods is that of rooting the suckers, and it is the one generally practised in this country. The suckers should not be removed from the parent plant until they are fully 18 inches high; it is profitable often to leave them even longer. The Queen variety of the Pine bears suckers unusually freely; one plant will often produce five or six. Most of these will appear in the spring, and they should, so soon as they can be conveniently handled, be reduced to one or two. The result will be that the remaining suckers develop into far more vigorous plants than would be the case if several were left upon the parent plant. The successful culture of the Pine depends largely upon the early treatment of the sucker; if this is not neglected there is a much greater chance of its developing into a vigorous fruit-bearing plant.

By the middle of the month of May the suckers will be large enough to handle, and all surplus ones should then be removed. This work needs performing with some care, for injury, both to the plant and to the sucker, is very easily caused. The best way is to press the sucker low down away from the stem and give it a twist, when it





A BANK OF TEA AND HYBRID TEA ROSES.  
(From a photograph by Miss Willmott.)

may easily be detached without harm being done. The few suckers left will now grow rapidly as the plant develops, and towards the end of August should have made strong sturdy plants from 18 inches to 2 feet high. This is the time to remove them for the purpose of potting, but with this subject we have not at present to deal.

The next method of propagation is by the crown of the fruit, and its practice necessitates a much longer time before a plant capable of bearing fruit can be produced than does the way we have just detailed. It is usually resorted to only in the case of varieties which are shy in giving off suckers, making these, of course, scarce and of greater value. The only preparation necessary before inserting the crown of the fruit in the pot is to take off a few of the bottom leaves, leaving about half an inch of the base bare; from that portion roots will be emitted, when it is potted firmly into a medium-sized pot and this plunged into a bottom heat of 70°.

The third method referred to, namely, by means of the stem, is accomplished by laying the hard part of the stem, after stripping off the leaves, in shallow pans or boxes filled with light loamy soil, covering them to the depth of half an inch, and plunging the boxes in a bottom heat of the same temperature as before mentioned. This is a most useful practice to adopt when it is desired to increase the stock of choice and scarce varieties. It will be at least two years before Pines propagated in this way will give any return in fruit, and probably longer; but as one stem will often produce from five to six plants it is a useful method of increasing the stock.

We now come to the fourth and last-mentioned manner of propagating the Pine. When Pine culture was so highly thought of and so generally practised in this country, between thirty and

forty years ago, many attempts were made to raise new varieties by cross-fertilising the older ones. A few sorts were raised in this way, and for some years were in commerce. They were, however, no improvement upon existing varieties, and for this reason soon suffered extinction. Propagation by seed in the case of the Pine is only resorted to when it is desired to raise an improved new variety.

I am afraid there is no great field for improvement in the varieties of the Pine, those we already possess being so excellent. The principal ones are The Queen, Smooth Cayenne, Charlotte Rothschild, and Black Jamaica. Others that used to be grown, but now are almost forgotten, are Providence, a huge variety, the fruits, though of poor quality, often weighing as much as 16lb. each; Sugarloaf, a handsome, conical fruit of an intense crimson colour; Prince Albert, much like Sugarloaf, but a larger fruit and not quite so conical; and Lady Beatrice Lambton. This variety was raised at Lambton Castle in 1860 by Mr. Stevens, at that time gardener there; it is a useful and handsome fruit of excellent flavour, and very distinct. Lord

Carrington is a variety that was introduced by Mr. Miles (Lord Carrington's gardener) many years ago. This was popular for a time, especially as a winter-fruiting Pine. For all practical purposes, however, the varieties now grown in England may be said to be the following: The Queen, Charlotte Rothschild, and Smooth Cayenne. There are three recognised varieties of The Queen Pine—the Moscow, the Ripley, and the Thornby. The Ripley is the most handsome, of the best quality, and most commonly grown. There are two varieties grown under the name of Charlotte Rothschild. The genuine one has large, dark, broad leaves: the spurious one has long, narrow ones. Of the Smooth Cayenne there are also two varieties; the true one has dark, broad, leathery foliage, with a few prickles, while the inferior one has much narrower and smoother leaves.

A. P. H.

## THE ROSE GARDEN.

### TEA ROSES ON BANKS.

**M**ANY an otherwise good garden is disfigured by a wearisome repetition of dull grass banks. They are not only uninteresting, but are difficult to keep in order, and if they face the sun the grass burns and is unsightly all the summer. The illustration shows such a bank not grassed, but made beautiful by a bold grouping of Tea and Hybrid Tea Roses, with a front planting of that grand pink Verbena Ellen Willmott and Funkia. This lower planting will, of course, leave this part of the bank bare in

winter, but the place in question is not a winter residence. It might in other circumstances be planted with Heaths or Cotoneaster, or with dwarf Cistuses and dwarf Lavender, or some of the well-clothing plants of good winter grey, such as Lavender Cotton.

### ROSES FOR PERGOLAS, FENCES, AND ARCHES.

*We have been asked by many readers of THE GARDEN to give a selection of the most easily-grown and beautiful Roses for pergolas, fences, and arches, and hope the following carefully compiled list will be helpful.*

WE have many Roses that almost anyone can grow, supposing always that the soil is fairly good and that it is deeply dug before planting and enriched with animal manure. Light, shallow soils should be deepened by removing the gravel below, giving the plant at least 2 feet of good soil with a layer 3 inches or 4 inches thick of cow manure on the gravel, and thus render it more retentive. Heavy, clayey soils should have gritty material incorporated. Road scrapings, washed seasand, or burnt refuse make good material for the purpose. Where I think the beginner makes a great mistake is in attempting too much. He plants Roses, fruit trees, flowering shrubs, herbaceous and bulbous plants, &c., all in one little plot, with the result that nothing is done well and all are overcrowded. Give the Roses as open and sunny a spot as possible, prepare the ground by trenching some weeks before planting, avoid falsely stimulating artificial manures, and only use good farmyard manure, well decayed. Plant in the autumn if possible, although early spring planting is not to be condemned. Where the garden is bounded by a close-fitting fence some lovely Roses may be planted against it. Roses in pillar form are also beautiful when well done and isolated in a way to exhibit their individual beauty. Arches of Roses present a glorious picture if covered with suitable kinds. These may span the walks or run parallel to them. Should this latter plan be adopted, clumps of dwarf Roses in front of the arches would be most appropriate. If a pergola or covered Rose walk be possible, a feature of considerable interest is added to the garden, but pergolas seem out of place in small gardens.

As to pruning Roses, those grown on the fences should have some of the flowering wood cut away in summer immediately after flowering, and in spring just the shortening of the laterals suffices, the long rods being left untouched. Similar treatment is accorded pillar Roses, but arch and pergola Roses should be allowed to grow as they like, excepting that when crowded one or two of the oldest shoots are removed quite to the ground. It is important to dwellers near large towns that the foliage of the Rose plants be cleansed of various deposits at least every other day, selecting the evening as the more suitable time. If this be well done, the green fly and other pests will be less troublesome. I cannot too forcibly impress upon the beginner the importance of frequent hoeings, not merely to kill weeds, but also to aerate and sweeten the soil. The varieties named below are all selected for their freedom in blossoming, usefulness for buttonholes and sprays, and also by their sturdy vigour providing the grower with some free-growing Roses that with ordinary care the merest tyro can easily cultivate. The following twelve kinds are well adapted for fences, and are placed in order of merit:—

#### FOR FENCES.

*Marie Van Houtte* (Tea-scented).—A general favourite, of palest cream colour. The petals are usually edged with rosy pink, which colour in autumn is much intensified. A splendid grower, constantly blooming, yielding quantities of lovely buds.

*Wm. Allen Richardson* (Noisette).—A west fence would probably suit this best. It is a Rose of remarkable colouring, rich orange-yellow, also notorious for the way in which some of its blossoms appear nearly white. To avoid the latter give it good feeding; for instance, a couple of gallons,



each week after buds are seen, of weak liquid manure made from cow manure and soot. Thin out the old wood after flowering in autumn, and in spring shorten laterals only. Spread well out on the fence.

*Mme. Abel Chateau* (H.T.).—Always a favourite. The colour is fawn-pink shaded salmon, the centre of the flower intense in colour, paling to the outer edge. A vigorous grower, good as standard on wall or fence or as bush. May be cut with fine long stems. If used as a bush tie over some of the long growths, securing them to pegs fastened in the ground, and thus induce a more abundant blossoming.

*Mme. Lambert* (Tea), salmon-pink, buds often red. A most reliable grower and one easy to cultivate, yielding quantities of its pretty buds.

*Mme. Hoste* (Tea).—Certainly one of the best; rather thin when expanded but superb in its half-open stage and in the buds. Colour bright clear yellow. A grand Rose of free growth and very floriferous.

*Anna Ollivier* (Tea).—Similar to the last-named in growth, with buds of most lovely colour, rosy flesh, with brownish crimson base on the outside petals. When well grown the colour of this variety is most unique.

*Caroline Testout* (H.T.).—A magnificent Rose of the La France type, though not so sweet. Buds very lovely, also expanded flowers. Grand to cut for table decoration, and for this purpose several plants should be grown. Trained on a fence it needs but little pruning.

*Safrano* (Tea).—A bright apricot-coloured bud. Pays for good cultivation, as then the buds are much elongated. This variety is grown in immense numbers on the Riviera, and quantities of its pretty buds are imported in March and April.

*Marie d'Orleans* (Tea).—As hardy as old Homer, but far more useful, for it yields the most beautiful of buds of a brilliant rose colour.

*Gustave Regis* (H.T.).—Perhaps the longest bud Rose we have. Canary-yellow in colour. A strong grower, should be sparingly pruned, but like all strong growers it flourishes best on the young wood. As a bush it is good, also standard. A west aspect would be best if used on a fence.

*Dupuy Jamin* (H.P.).—One of the best late flowering red Roses we have, and a most useful all round variety, cherry red in colour, and of strong growth.

#### PILLAR ROSES.

To make really effective pyramidal pillars three plants should be planted in a group, the supporting stakes being formed in the manner of a tripod. They should be in a more conspicuous place. The kinds named are selected for their pretty buds rather than the extra strong growths.

*Climbing Belle Siebrecht* or *Mrs. W. J. Grant* (H.T.).—The dwarf form of this is well known, and is one of the most beautiful bud Roses. I should prefer to grow the climbing variety as a pillar. From pillars three years or four years old fifty to sixty blossoms appear towards the end of June, and one is assured of another blossoming later. The most shapely buds and flowers with fine long stems can be had from this Rose, and the brilliant pink colour is in much request for table work.

*Celine Forestier* (Noisette).—Rich sulphur-yellow. A well known kind of vigorous growth. The growths must be left long when pruning. If room cannot be found for it as a pillar it makes a splendid standard.

*Bouquet d'Or* (Tea).—A perfected Gloire de Dijon. Not so vigorous, but it gives buds of the greatest beauty, and richer in colour than Gloire de Dijon.

*Grüss an Teplitz* (H.T.) is a very brilliant colour, useful for cutting, especially late in autumn. Then it forms the prettiest of scarlet buds. The fine clusters and beautiful foliage are very conspicuous at all times.

*Mme. Berard* (Tea).—A splendid vigorous

Rose for a tall pillar or arch. The lovely apricot-coloured buds make elegant buttonholes.

*Billiard et Barré* (H.T.).—Buds rich golden yellow. One of the best Roses of its colour. Growth semi-climbing. Plant it against a 6-foot stake and train any long growths it makes spirally, which will induce a freer blossoming.

*Ulrich Brunner* (H.P.).—A good all-round red Rose, not particularly handsome in bud, but so vigorous and good that one can recommend the variety with every confidence.

*Clio* (H.P.).—A grand white Rose with flesh pink shading. It produces its blossoms in immense bunches and must be severely thinned, then every bud is a perfect buttonhole. A very strong grower, not, however, very free in autumn.

*Dr. Rouges* (Tea).—An attractive red bud with coppery yellow shading. Rather better than *L'Idéal* as a pillar, but not so distinct in colour.

#### FOR ARCHES OR PERGOLAS.

It is most important to plant such Roses on the above that may be depended upon to clothe them rapidly, and as they are planted for garden effect one would not cut the flowers for the house. I, however, name some kinds that will yield pretty buds, and also certain kinds that produce handsome trusses of blossom for vase or table if required. Taking them in order of merit that grand old Tea

*Gloire de Dijon* must stand first. This must not be left out of any garden. If no arches, then have a pillar, a standard, or a spreading bush of it, for it will accommodate itself to any mode of culture and training. Its long canes bent over to form a handle similar to that upon a basket will be studded all over with buds.

*Blairii No. 2* (Boursault).—A good double Rose of pink colouring, vigorous and free. (See illustration.)

*Reine Marie Henriette* (Tea) is sometimes called Red Gloire, but why no one knows. If left unpruned it will, in two or three years, make a glorious arch, and its cherry-red flowers are showy, if not especially handsome. Rather liable to mildew, therefore should not be watered artificially. Good doses of liquid manure in winter would help such Roses immensely.

*Electra* is grand; one of the best of these free rambling Roses. It flowers rather earlier than *Crimson Rambler*, and is of a yellowish-white colour with tiny canary-yellow buds.

AN OLD ROSE GROWER.

(To be continued.)

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### CHRYSANTHEMUMS.

NO definite date can be stated as to the time for selecting buds. Very much depends on the season, varieties, and the locality in which the cultivator resides. As a general rule from the middle to the end of August is the best time. Great care is necessary in removing the surplus buds and shoots; this work is best done in early morning or late evening. If practised during the middle of the day the growths are tough and the selected bud is likely to get damaged. Watch minutely and search the points of the shoots for earwigs; there is no better trap for these than short lengths of Broad Bean stalks placed plentifully amongst the plants. To prevent or destroy green-fly, dust the points of the shoots with tobacco powder. A good syringing in the morning will cleanse the shoots from both fly and powder. Should thrip make its appearance syringe the shoots well with soft soap and water. Tie growths to make them perfectly secure against the wind. The plants will much benefit by a good top-dressing; the surface soil should be slightly stirred with a pointed stick, care being taken not to damage the roots. A suitable compost is one of rough turfy loam and dried horse manure in equal parts, with a sprinkling of bone-meal. Where dwarf plants are required the shoots may be made into cuttings from 4 inches to 6 inches long when the bloom buds are formed. Insert singly in 2½-inch pots in sandy soil, pressing the compost round the cutting; place them in a propagating frame with a good bottom heat; water and shade from sun. Five or six cuttings of the single varieties should be inserted in 4½-inch pots. These may all be flowered in their cutting pots, and are useful plants for conservatory and house decoration.

#### MALMAISON CARNATIONS.

The earliest layered batches will now be growing freely, and should be potted up as soon as rooted. Prepare a compost of two parts loam, one part leaf soil or peat, and the remaining part made up equally of crushed charcoal, silver sand, and dried horse manure. In mixing, add a dusting of soot, and should the loam be light then add a sprinkling of bone-meal. The layers should be taken up with



ROSE BLAIRII NO. 2 ON A PERGOLA.



a good amount of soil adhering and placed in 3-inch or 4-inch pots. Use clean and dry flower-pots, and drain them thoroughly. Pot firmly but with great care, as the roots are easily injured. The plants will need staking, and care is necessary in giving water until roots have been freely made. It is well to shade them for a few days, after which give plenty of air and keep the plants near the glass. The later batches should now be layered as the plants pass out of flower. Large specimens should be potted on, using a rather rougher compost, and firmer potting is essential. Three good winter flowering varieties are Sir Charles Freemantle (deep rosy pink), Princess May (deep rose), and Marchioness of Londonderry (scarlet); one-year old plants potted on are the best for that purpose.

JOHN FLEMING.

Wexham Park Gardens, Slough.

## THE KITCHEN GARDEN.

### CELERY.

THE whole of this crop ought now to be growing freely; it is absolutely necessary, however, to have it in perfection, that the plants be kept well drenched with water, both overhead and at the roots; in dry weather, indeed, it is hardly possible to give too much, and at every third watering either farmyard liquid or house sewage should be given. Remove all side growths, split and deformed leaves, hand pick the maggot-infested leaves and consign them to the fire where badly attacked. I fear that in some districts, especially farther north, it is very prevalent this year. Continue to earth up the Celery plantings at short intervals, this being the proper method to blanch Celery. Also dust over the foliage with soot in early morning while wet with dew.

Celeriac, or Turnip-rooted Celery, which was planted as advised, should, like Celery, receive liberal treatment by way of thoroughly watering and keeping the surface soil constantly stirred with the hoe, as the larger the bulbs the better will be their quality.

### BRUSSELS SPROUTS.

This is a most important crop in many gardens during the whole of the winter months. The earliest batch will now be in full vigour, and it is a capital plan to stake the whole of these to keep them in an upright position, as rough wind often turns them on one side, and the buttons become splashed and gritty and the yield is not so good. Any rough stakes will answer the purpose, and it does not take up much time. Apply a little artificial manure to each plant in showery weather, and the later plantations should be frequently hoed with the draw hoe.

### WINTER GREENS

of all kinds that were planted between rows of early Peas, which have afforded them the necessary shade during the past trying weather, will now be well established. The Peas should be removed, then apply a little patent vegetable manure, fill up any vacancies from the seed bed, lift them carefully with a fork, and thoroughly water them in. The whole of the ground between them should be pointed and broken up finely.

### GLOBE ARTICHOKE

will be much benefited by giving them good drenchings of farmyard liquid, when they will continue to bear till quite late in the autumn. Should the heads come on faster than they are wanted for use, cut them before they commence to open, place the ends in water and stand them in a cool place, when they will keep fresh and fit for use for many days.

### POTATOES.

Lose no time in lifting the tubers as they become ready; far better to err on the side of taking them up early and storing than leaving them in the ground, as in all probability after a spell of continuous wet weather many will become afflicted with the disease which otherwise might, by early lifting, have been saved. Should the skins become

slightly rubbed they will quickly form another, and be none the worse; burn all the haulm and rubbish on the ground.

### WINTER ONIONS.

The ground having been previously prepared, the first sowing should at once be made in shallow drills, after the ground has been thoroughly raked down and made quite firm in dry weather. The drills, after sowing, should be well watered with a rose watering-can to assist germination of the seed. White Emperor, White Leviathan, and Giant Blood Red Rocca are all excellent for the first sowing.

### CARDOONS.

These should be kept well watered and blanched as they become large enough, this taking fully ten weeks to do properly.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

## THE FRUIT GARDEN.

### POTTING STRAWBERRIES.

THE preparation of plants for forcing is best commenced by layering runners as soon as they can be secured, and they should when ready be placed in their fruiting pots without delay. They then have ample time to form good crowns and fill the pots with roots, but under these conditions it is not advisable to employ pots so small as is sometimes recommended, especially for strong growing varieties. For early forcing pots 5½ inches and for late use those 6½ inches in diameter are none too large. These must be efficiently drained with clean potsherds, lightly covered with dry moss, coated with dry soot, so that the plants do not become waterlogged, which would be fatal to success. The compost should consist of a good rooting medium, not over rich. A moderately heavy loam, finely broken up, with dry horse manure mixed, answers well, and in potting it should be rammed rather firmly. When potted the plants should be placed upon a firm bed of ashes, in a position fully exposed to the sun, and be allowed sufficient space to develop their foliage without being crowded.

### PINE-APPLE SUCKERS.

Plants of Queen Pines that are relieved of their fruit should have their roots well supplied with tepid manure water, and be regularly syringed over head and between the plants in the morning and evening of fine days. This treatment, accompanied by a circulation of warm air and a night temperature of from 65° to 70°, will induce the suckers to make sturdy growth and be fit for potting at the beginning of September. In preparing suckers for potting, remove their bottom leaves and cleanly cut off their jagged ends. In potting, place them firmly in well-drained 7-inch pots, and weaker ones in a size smaller, using light fibrous loam, mixed with dry soot as a compost, and if the loam is poor add a little bone-meal or a similar manure. Plunge the pots in a low house or pit in a bottom heat of about 85°, and give them sufficient tepid water to moisten the soil through, but afterwards, until the plants are rooting freely, water must be very carefully administered. Maintain a rather close and moist atmosphere, and keep them shaded from bright sunshine until they are rooted, when more air, accompanied by less shading, should be given. Should the suckers be affected with scale or mealy bug thoroughly clean them before they are potted.

### SUCCESSIONAL PLANTS.

It is at all times desirable to examine plants individually and not collectively, for injudicious watering is a great evil. Encourage the plants to make robust sturdy growth by ventilating the structure early on warm days, and closing sufficiently early for the temperature, from solar warmth, to reach 95°. A night temperature of 70° is desirable, and if it can be upheld without assistance of artificial means all the better.

THOS. COOMBER.

The Hendre Gardens, Monmouth.

## MISCELLANEOUS.

## GRAFTING THE CACTUS.

SOME of the Cacti, which make most desirable specimens when of good size, are so very slow in growth on their own roots that a collector would get tired of waiting for them. This is one of the principal reasons for grafting Cacti, although it is also done for other reasons. Better effects are obtained by having a trailing or drooping part grafted on a tall stout stem of Cereus, as thus a specimen can be set on a table without having to hang over the sides. Then other curious effects are obtained by putting a globular part on a Cereus stock, when in a very short time the scion is full grown and blooming freely. To improve the bloom and get it sooner is another object in grafting. The process is not at all hard, and any one who has some good strong rooted cuttings of Cereus nycitcalus, grandiflorus, or colubrinus, and has some slow grower like the Epiphyllums, can do as well at producing these curiosities as an old hand at the business. First, be sure that both the scion and stock are in a good healthy, growing condition, preferably in the spring. For instance, if it is desired to use a stock of C. colubrinus, and put a top on it of C. flagelliformis or rat-tail Cactus, select a stock about 2 feet high, and take two nice pieces of new growth of the rat-tail, about 3 inches in length; cut the top off the stock square and split it down the centre about an inch; then with a sharp knife cut the scions to a wedge shape, and insert in the split top of the stock. To hold them in place you only require to run a long Cactus spine through both stock and scion, and tie a string firmly around the stock to keep the cut edges together. For a few days set in a partially shady place, and do not wet the graft when watering. Growth will very quickly commence, and you will be surprised at how fast a large head will form on the tall stock. The Crab Cactus is grafted in the same way, but the best stock to use is the Pereskia, which forces a fast growth, and is better when old than a Cereus stock. The globular sorts can be put on in any way that seems to suit best, either set flat on top of the stock, care being taken to have the cut edges about the same size, or by wedging either the stock or scion, and inserting into the other, always fastening the two together as firmly as possible with spines, and by tying string around to hold the edges together till they unite. The small specimen shown in the engraving is only one season's growth of Echinocereus coespitosus or Lace Cactus on C. colubrinus. The scion, when put on, was only about the size of a Walnut, but grew so fast it looked as though the skin must burst. A specimen of C. flagelliformis cristatus or Opuntia tessellata cristata, makes a very odd plant when grafted, and assumes all sorts of fantastic forms in Cock's-comb style.—J. H. CALLANDER in *The Canadian Horticulturist*.

## A GROWL FROM ITALY.

I wish to call attention in the columns of THE GARDEN to one or two practices on the part of nurserymen, both English and foreign, which appear to me to be very reprehensible and much on the increase.

The chief of these is the extreme carelessness in sending bulbs not true to name. Last autumn I had an opportunity of getting out a few bulbs from England by private hand. (Neither plants nor bulbs are allowed to be imported from England into Italy.) I wrote to a well-known nursery for a dozen Iris tingitana which I desired to add to my little collection of Iris. The price of these was 3s. per dozen, but only ten bulbs were sent for the dozen. These were carefully planted and their flowers watched for with some anxiety. When they appeared they were found to be neither more nor less than a common yellow Spanish Iris! I sent a sample of the flowers to the nursery in question and received, not a word of apology or regret, but a post-card with a curt



remark that there had evidently been a mistake, but that they would rectify it this autumn.

But at any rate this was polite in comparison with the behaviour of a Dutch firm who, on being informed that out of fifty of the Spanish Iris Thunderbolt, ordered last autumn for a bed where a particular touch of colour was desired, only four were true to name, and the remaining forty-six had been sent in mistake, wrote me a dissertation on "rogue" effects of bulbs, and offered to make good half the number this autumn! Now Spanish Iris are not a very expensive thing, but to have a particular effect of colour spoilt is very annoying, and I hear complaints of this sort of thing on all sides among my gardening friends in Italy.

Another very annoying trick of bulb growers is the sending out of bulbs so immature that one has to wait for some years for their flowering. A friend of mine showed me this spring some very lovely Narcissus flowers, and on my enquiring from whom he had them, he named a first class Dutch firm, adding that he had them *four years* ago, and this was their first flowering! Now it appears to me that the catalogue price of bulbs is generally high enough to justify the expectation of receiving bulbs sufficiently matured to flower the first season.

Yet a third bad habit remains to be noted, and that is that when a cheque is sent in payment of an account the latter is frequently *not* returned, but a post-card acknowledgment is sent in lieu of the account properly receipted. I find this custom prevails to such a degree that I never now do return the account, which forms my invoice of plants received, if I can possibly help it. But this spring I received the bill for a little consignment of Chrysanthemums and Cannas from a Lyons firm so carelessly made out that only half of the items figured in the debit column, the remainder being ignored, though mentioned on the invoice sheet. I filled in the amounts owing to the best of my ability, and as it was the first time I had dealt with this firm I thought it better to return the account itself along with the cheque that they might verify my figures. After waiting ten days for an acknowledgment of my letter I wrote to enquire if it had been received, and there came a post-card reply, thanking me for cheque, soliciting further custom, &c. I had the trouble of again writing to request the return of the account itself. Of course I had a copy, but with an Italian gardener one cannot be too careful to be clear as to what has been ordered, and an original list is never a thing to be thrown away.

Now just consider the time, trouble, eyesight, and postage involved in this system of book-keeping. And this is by no means an isolated instance. I hardly ever receive an order that does not involve some correspondence, and the arrogance of some of the Dutch firms and their total inability to acknowledge the possibility of any mistake would be amusing if it were not so provoking, when facts to the contrary have been put clearly before them. It would be a great matter if these remarks were laid to heart.

Florence.

TUSCAN.

### PLEACHED ALLEYS.

In the old days the pleached alley was as familiar in English gardens as the pergola of the present age. Both are interesting and useful features in the pleasure grounds, since both provide grateful shadowed walks in the sultry heat of summer. The pergola is the more pictorial, for on either side flowering plants may be grown in narrow borders between the supports, but this is not possible in the dense shade of the pleached alley. In forming either one or the other its site should be thoughtfully chosen. Many pergolas appear to have no reason for their existence, and to have been dropped casually in the garden, leading from nowhere to nowhere.

These covered ways should always be constructed to lead from one point of definite interest to another, and where this is done the garden views revealed on emerging from their shade gain an increased interest and beauty. The subjects most generally used in the fashioning of pleached alleys

were the Hornbeam and Lime, both native trees; but green alleys have been made of Yew, of *Cotoneaster microphylla*, Holly, and other evergreens. Since, however, the alley-way is not needed in the winter season deciduous trees are more suitable than those that retain their leaves. In spring the deciduous tree may be watched putting forth its buds and gradually making a leafy canopy above the path.

Other good trees for alleys are the weeping varieties of the Ash and Elm. The use of trees of naturally weeping growth is not absolutely necessary, as is proved by the preference shown in former days for Hornbeam, Lime, and Beech, but the drooping branches fall more easily into position than those of upright growth.

The alley requires attention. In winter the oldest of the wood must be cut out to make room for the young growth, and when this is lengthening vigorously it must be carefully laid in.

Flowering trees have not yet been alluded to with the exception of the Lime, with its flood of sweetly-scented pale green flowers during the hot July days, but many may be used with the happiest results for the pleached way. *Laburnum* is one of these, and in spring the alley is clouded with golden tassels. *Wistaria* is used with beautiful effect in Japan for covering overhead trellises and draping archways, and the long, scented, lavender flower trails are never more charming than when seen hanging from an arching covered way. Where *Wistaria* is made use of the alley should be at least 9 feet or 10 feet in height at the centre, especially if the *Wistaria* known as *multijuga* is employed, which is almost invariably grown in Japan, as the racemes are 3 feet or more in length. The commoner *Wistaria sinensis* is generally planted in English gardens, but *W. multijuga* is very beautiful and does well in many places. The *Wistaria* is often of slow growth in its early stages, but when once well established makes long and vigorous shoots annually. If the alley has an iron framework, which for the *Wistaria* is necessary, this may be clothed during the first few years, until the *Wistaria* is growing strongly, with annual climbers, such as *Cobaea scandens*, *Lophospermum*, *Mina lobata*, and even with varieties of the large-flowered *Clematis*, these naturally being removed when the *Wistaria* covers the alley. Very pretty alleys are sometimes formed of fruit trees—Pear, Apple, Cherry, and Plum making charming spring pictures, and being almost as decorative when in their fruit-bearing stage. Where fruits and flowers are required care should be taken that every shoot is exposed to the sun and air, since if they are densely shaded by other growth they will fail to ripen, and will consequently flower badly or not at all. The *Prunus* family contains not a few ornamental pendulous varieties that are well adapted for the pleached alley.

S. W. F.

## THE KITCHEN GARDEN. VEGETABLES AT THE DRILL HALL.

VERY recently a memorial, signed by some sixty persons—Fellows of the Royal Horticultural Society, members of the vegetable committee, and others interested in vegetable culture, the promoters of the memorial being Messrs. E. Beckett and A. Dean—was presented to the council. It pointed out that, whilst all descriptions of plants, flowers, &c., were well and continuously favoured at the Drill Hall meetings, and a special show for fruit was held at the Crystal Palace, no special encouragement was given to vegetables, although these constitute subjects of the very first importance in horticulture. The council were, therefore, invited to arrange that at least one Drill Hall meeting annually, either in July or October, be set apart specially as a vegetable show, and that some small sum be voted each year as prizes to one or more classes. The object of the memorialists was to secure representation in London of the very

best descriptions of vegetables such as are seen at some of the great provincial shows—not in unlimited collections, which too often include much inferior material, but in restricted collections of first-class excellence. That the seed trade would join heartily in offering prizes for such an exhibition there can be no doubt, and the Royal Horticultural Society might thus provide the finest display of vegetables to be seen in the kingdom at trifling cost. So far few chances to see high-class vegetables are offered in London. There have been, and will be again this autumn, competitions for them at the Westminster Aquarium, but that place will disappear early next year and will no longer be available for exhibitions, hence in 1903 there may not be any good class vegetable shows in the metropolis. When it is remembered that London is the headquarters of the Royal Horticultural Society, the fact presents a grave reflection on that body when, in being applied to to fill the void, it seems perhaps somewhat diplomatically to decline to do so. The reason alone given in the following reply to the memorial referred to seems to be so very inadequate, seeing that no one would think of issuing a schedule of vegetable classes exceeding the space the Drill Hall can spare to fill. Through the Rev. W. Wilks, M.A. (secretary), the council has replied: "The council have had your memorial as to vegetables before them at two sittings, and have very carefully considered it. They have concluded that to have really representative collections of different grades would require more room than can be given in the Drill Hall, and for this reason, and 'other' reasons, they desire to postpone the further consideration of the matter until a larger hall is provided." What the "other" reasons may be are not stated, but I fear dislike of vegetables as exhibits is one.

A. DEAN.

## SOCIETIES.

### HANDSWORTH FLOWER SHOW.

THE eighteenth annual exhibition and floral fête of the Handsworth and District Horticultural Society was held in the Victoria Park on July 25 and 26.

Group of plants arranged for effect, 30 feet by 15 feet, winner of first prize to receive silver challenge cup.—First, Messrs. Cypher and Son, Cheltenham; second, Mr. Hancock, West Bromwich.

Twelve stove or greenhouse plants, distinct, not less than six in bloom.—First, Messrs. J. Cypher and Son, Cheltenham; second, Mr. W. Vause, Leamington.

Collection of fruit, not less than ten varieties, Pines excluded, winner of first prize to receive silver challenge cup.—First, Mr. Goodacre (gardener to the Earl of Harrington); second, Earl of Carnarvon.

Best six bunches of Grapes (three black, three white), winner of first prize to receive silver challenge cup.—First, Earl of Carnarvon (gardener, Mr. J. Read); second, Mr. Goodacre.

Twenty-four Roses, distinct.—First, Messrs. Perkins and Son, Coventry; second, Messrs. D. Prior, Colchester; third, Messrs. J. Townsend and Sons, Worcester.

Twelve bunches garden Roses, distinct.—First, Mr. J. Mattock, Oxford; second, Messrs. J. Townsend and Son.

Twelve Tea Roses, not less than six varieties.—First, Messrs. D. Prior; second, Messrs. Townsend and Son; third, Mr. J. Mattock.

Twelve yellow - ground or self Carnations or Picotees, distinct.—First and second, Mr. R. S. Cartwright (gardener, Mr. R. J. Rudd).

### GENTLEMEN'S GARDENERS AND AMATEURS.

Group of plants arranged for effect.—First, Mr. C. A. Palmer (gardener, Mr. W. C. Thomas); second, Mr. George Tangye (gardener, Mr. Tomkins); third, Mrs. J. H. Pearson (gardener, Mr. T. Faulkner).

Group of plants arranged for effect, not to exceed 6 feet.—First, Colonel Howard Wilkinson (gardener, Mr. J. J. Canning); second, Mr. W. H. Floyd (gardener, Mr. C. Brown); third, Mr. A. Heaton (gardener, Mr. F. Biddle).

Nine stove or greenhouse plants, distinct, not less than four in bloom.—First, Mr. E. J. Abbott (gardener, Mr. S. Coster); second, Mr. C. A. Palmer.

Six stove or greenhouse plants, distinct.—First, Mr. C. A. Palmer; second, Mr. E. J. Abbott.

Six exotic Ferns, distinct.—First, Mr. C. A. Palmer; second, Mr. V. Vaughton (gardener, Mr. C. Perkins); third, Mr. W. H. Floyd.

### CUT FLOWERS.

Twelve bunches of cut flowers, from stove or greenhouse plants, not less than six varieties.—First, Mr. F. Baker; second, Mr. C. A. Palmer; third, Mr. E. J. Abbott.

Twelve bunches of hardy border flowers, not less than nine varieties.—First, Mr. E. J. Abbott; second, Colonel Howard Wilkinson; third, Mr. A. J. Rabone.

Twelve Roses, not less than six varieties.—First, Mr. F. Dennison; second, Mrs. Goode; third, Mr. E. J. Abbott.



## PRESCOT.

This summer exhibition was held in glorious weather in the delightful park of Knowsley, by the kind permission of the Right Hon. the Earl of Derby, K.G. The number of entries exceeded those of last year by over 100. The fruit was excellent, whilst the vegetables showed a considerable advance; Mr. B. Ashton, gardener to the Earl of Lathom, beating that able veteran Mr. Rainford with a superb collection. The committee, Mr. F. H. Taylor, treasurer, and Mr. W. Case, secretary, are to be congratulated upon the success of what promises to be the leading summer show of the district. A suggestion as to the more rigid interpretation of Rule XI. might be noted so that pressure could be brought to bear upon the exhibitors to name their exhibits, especially those in the plant classes, in which the names are conspicuous by their absence. The following were the awards in the more important classes:—

Collection of plants arranged for effect: The first prize, presented by the Hon. Arthur Stanley, M.P., was won by A. McKenzie Smith, Esq. (gardener, Mr. W. Lyon), with a tastefully arranged display, in which *Palms*, *Crotons*, *Caladiums*, *Cattleyas*, *Francoas*, &c., were used to advantage; H. Ogden, Esq., was second, and Thomas Henshaw, Esq. (gardener, Mr. J. George) third.

Six stove and greenhouse plants, three in bloom: Dr. Cook (gardener, Mr. G. Osborne) was first; J. C. Gamble, Esq. (gardener, Mr. W. S. Barnes) was second.

Four *Caladiums* and a single specimen, J. Parrington, Esq. (gardener, Mr. Thomas Eaton) was first in each class.

Four stove and greenhouse Ferns: Mr. W. S. Barnes led with good *Adiantum cucumatum*, *Pteris longifolium*, &c.

For eighteen, twelve, and six cut Roses, Mr. P. Green won in each class with fair blooms considering the late season.

For six light coloured blooms, Mr. E. Bache won with the variety Mrs. Sharnam Crawford. For twelve Carnations, Mr. J. George was easily first. For six bunches Sweet Peas, Mr. P. Green was first, in which the staging was faulty. For twelve varieties of herbaceous cut flowers, Mr. P. Green won with a fine lot of *Alströmarias*, *Coreopsis*, *Gladioli*, *Delphiniums*, &c.

Four dishes of fruit: Mr. T. Eaton was a good first, showing Black Hamburg Grapes, Hero of Lockinge Melon, Elrue Nectarine, and Royal George Peaches. The Right Hon. the Earl of Lathom (gardener, Mr. E. Ashton) was second, and J. Beecham, Esq. (gardener, Mr. Oldham) third. Two bunches Elack Hamburg, Mr. W. Oldham won with large bunches.

Two Muscat of Alexandria: Mr. W. Gaunt won with highly coloured examples. Two bunches black Grapes: H. Cunningham, Esq. (gardener, Mr. W. Wilson) was first with splendid Madresfield Court. For two bunches of white Grapes, W. Leeming, Esq. (gardener, Mr. J. Ashcroft) won with well coloured Buckland Sweetwater. For the Melon, Mr. T. Eaton won with a very good Lord Derby. Six Peaches, Mr. W. Gaunt was first with Barrington, and for the same number of Nectarines, Mr. T. Eaton won with Elrue, and held the same position for a dish of Cherries.

For twelve varieties of vegetables, Mr. B. Ashton won with a superb lot; Mr. J. Rainford was second.

Amongst the exhibits not for competition Messrs. A. Dickson and Co., Newtownards, had a grand lot of cut Roses; Mr. H. Middlehurst, Sweet Peas; Messrs. Caudwell and Sons, Sweet Peas, Roses, and herbaceous cut flowers; Messrs. Thomas Davies and Co., well flowered *Lilium longiflorum*, *Tomatoes*, &c.; Mr. Charles Young sent beautiful Sweet Peas; Mr. Charles Kinns, Sweet Peas and sundries.

## NEWPORT AND COUNTY.

THERE was a marked increase in the entries this year, and the quality of the exhibits was generally decidedly good. Cut flowers and stove and greenhouse plants, &c., were shown in capital condition. Mr. Cypher's group of miscellaneous plants attracted much attention, as did also the smaller groups of plants, particularly those of Begonias. Vegetables were of good quality and were largely shown, the collections staged for special prizes offered by Messrs. Sutton and Sons, Wheeler and Sons, and Garraway and Co. being of considerable merit. The leading exhibits of fruit were generally good, but there was room for improvement in some cases. Trade exhibits were numerous, and greatly contributed towards filling the several large tents.

For six distinct stove and greenhouse plants, Mr. Cypher, Cheltenham, was an easy first with large finely flowered specimens; second, W. J. Buckley, Esq., Llanelly (gardener, Mr. Carpenter). Mr. Cypher also took the first prize for six ornamental foliage plants with big *Palms* and *Codiaeums* in variety; Mrs. Williams, Brynglas (gardener, Mr. J. Tuff), being second, and Mr. C. H. Bailey third.

In a class for six exotic Ferns, Colonel Wallace, Chesterholm (gardener, Mr. Powell), was placed first with well-grown specimens; H. J. Davies, Esq., coming second.

## AMATEURS AND GENTLEMEN'S GARDENERS.

Four stove and greenhouse plants, the society's silver medal to be awarded to the best specimen in this class. Here Mr. Lockyer (gardener to C. Hanbury, Esq., Pontypool Park) was first with splendid plants, a plant of *Stephanotis floribunda* gaining the medal; second, Colonel Wallace, with a very creditable set, closely followed by Mr. Harris (gardener to G. F. Colborne, Esq.). Four ornamental foliage plants: First, Mr. Harris; second, Mrs. Pickford; third, Dr. Garrod Thomas. The *Coleus* made a good display.

## GROUPS.

Miscellaneous plants arranged in a space of 11 feet in diameter. There were two entries in the open class, and the leading exhibit came from Mr. Cypher, and contained the choicest plants usually employed for the purpose. Mr. Carpenter was the other exhibitor, and arranged a nice group.

Plants in a space of 50 square feet. Six exhibitors set up groups in this class, and Colonel Wallace, C. H. Bailey, Esq., and W. J. Buckley, Esq., were placed in the order named.

Group of Begonias in a space of 25 square feet. Four staged in this class, R. P. Williams, Esq. (gardener, Mr. Jones), securing the lead, closely followed by E. Davies, Esq.

## CUT FLOWERS.

Roses, twenty-four Hybrid Perpetuals. Four good lots were staged.—First, King's Acre Co., Hereford, with very good blooms; second, Messrs. J. Townsend and Son, Worcester.

Teas, twelve distinct.—First, Messrs. Townsend and Son; second, Messrs. S. Treseder, Cardiff.

Carnations, twelve blooms.—First, Messrs. Blackmore and Langdon, Bath; second, Messrs. Taplin and Sons, Newton Abbot.

Mr. Lockyer was first for twelve bunches of stove and greenhouse flowers. Messrs. House and Sons, Bristol, and Mr. W. Treseder, Cardiff, first and second in the order named for twelve bunches of herbaceous flowers.

Messrs. House and Sons, and Mr. Easham, Bassaleg, were first and second for twelve bunches of Sweet Peas, and were placed in the same order for an arrangement of Sweet Peas in a space 9 feet by 3 feet.

Mr. W. Treseder, Cardiff, was first for twenty-four Cactus Dahlias in fine condition. He was also first for a shower bouquet.

## NON-COMPETITIVE EXHIBITS.

Silver medals were awarded to Messrs. Blackmore and Langdon, Bath, for cut blooms of Begonias in about 100 varieties, and to Messrs. Pattison, Shrewsbury, for Pansies and Violas. Bronze medals were also awarded to Mr. Easham for a collection of Sweet Peas; to Messrs. Taplin and Sons for Carnations; and to the King's Acre Nursery Co. for Roses, Gooseberries, &c.

## ROYAL HORTICULTURAL SOCIETY.

The meeting held at the Drill Hall on Tuesday last was by far the smallest that has been held this year. Hardy flowers were fairly well represented, and there was one extensive display of fruit, that sent by Miss Adamson from Regent's Park; but there was, generally speaking, a poor display.

## ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, J. G. Fowler, de B. Crawshaw, H. M. Pollett, E. Hill, H. T. Pitt, F. W. Ashton, G. F. Moore, J. W. Odell, W. H. Young, J. Charlesworth, H. A. Tracy, H. Little, Jeremiah Colman, and James Douglas.

Messrs. Charlesworth and Co., Heaton, Bradford, exhibited several choice and interesting Orchids, which included *Cattleya haryana*, L.-C. *Adolphus superba*, *Cypripedium A. de Lairese* (C. *rothschildiana* × C. *Curtisii*), C. *Chapmanii magnificum* (C. *bellatulum* × C. *Curtisii*), *Cattleya Leander Haydes* (C. *bicolor* × C. *speciosissima*), *Laelio-Cattleya purpurata schilleriana* (L. *purpurata* × C. *schilleriana*), and others.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a small collection of *Cattleyas*, for instance, C. *superba splendens*, C. *Eldorado Wallisii*, C. *Eldorado*, C. *gigas*, and *Cynoches chlorochilum*, the curious green-flowered Swan Orchid was also shown. Silver Flora medal.

Captain Holford, C.I.E., Tethbury, exhibited a small group of Orchids that contained a splendid plant of *Vanda cœrulea* (cultural commendation), *Cattleya Patrocinii*, L.-C. *elegans* (Westonbirt variety), *Epidendrum fragrans*, L.-C. C. G. Reibling, and several good *Cypripediums*. Silver Flora medal.

Mr. James Douglas, Great Bookham, Surrey, sent L.-C. *Juno* (Edenside variety).

Messrs. William Bull and Sons, Chelsea, showed *Cypripedium Decia* (C. *Charlesworthii* × C. *superciliale*). *Cypripedium* × *Sophie* (C. *goverianum* × C. *niveum*) was sent by F. A. Rehder, Esq., Gipsy Hill (gardener, Mr. R. Norris).

Flowers of *Cattleya gigas* (Little's variety) were shown by H. Little, Esq., The Barons, East Twickenham (gardener, Mr. A. Howard).

*Odontoglossum harryanum* was exhibited by J. F. Alcock, Esq., Great Berkhamstead.

*Laelio-Cattleya Adolphus superba*.—*Laelia cinnabarina* and *Cattleya Acklandiae* are the parents of this new and beautiful hybrid. The spreading petals and sepals are a rich buff-yellow, lightly spotted with chocolate-red. The lip is a velvety crimson-red with a central band of yellow. A distinct and attractive novelty. Exhibited by Messrs. Charlesworth and Co., Heaton, Bradford. First-class certificate.

## FRUIT COMMITTEE.

Present: Messrs. H. Balderson, James Cheal, W. Bates, S. Mortimer, Alex. Dean, Wm. Pope, Horace J. Wright, George Kelf, J. Jacques, J. Willard, and A. H. Pearson.

A gold medal was given to Miss Adamson, South Villa, Regent's Park, N.W. (gardener, Mr. G. Kelf), for a splendid display of fruit. At the back of the group were Plum trees in pots, excellent specimens, bearing heavy crops of fruit, and along the front were Black Hamburg and Buckland Sweetwater Grapes, dishes of Peaches, Plums, Cherries, Gooseberries, Raspberries, and Melons, all of first-rate quality. When one considers that all the fruit was grown within two miles of Charing Cross, Mr. Kelf's exhibit is most creditable.

Messrs. Laxton Brothers, Bedford, exhibited a box of splendid fruits of their new Strawberry Trafalgar, grown in the north.

Mr. Beale, gardener to E. A. Hambro, Esq., Hayes Place Gardens, Hayes, Kent, was awarded a silver-gilt Knightian medal for some splendid bunches of Black Hamburg Grapes cut from a Vine 100 years old. They were excellent fruit, and the bunches very large.

Messrs. Harrison and Sons, Leicester, exhibited an extensive collection of Peas (culinary). Very many varieties were represented, seventy-seven in all. Silver Banksian medal.

## FLORAL COMMITTEE.

Present: Messrs. W. Marshall (chairman), H. B. May, George Nicholson, J. Jennings, J. Walker, J. F. McLeod, G. Reuthe, C. R. Fielder, Charles Dixon, J. W. Barr, W. P. Thompson, C. E. Shea, E. H. Jenkins, W. J. Barr, J. H. Pitt, H. Turner, W. Howe, and the Rev. F. Page Roberts.

Mr. Maurice Prichard, Christchurch, Hants, exhibited an extensive display of hardy flowers, the *Phloxes*, *Eryngiums*, *Veronicas*, *Carnations*, *Liatris*, *Tritomas*, *Helianthus rigidus*, *Galega officinalis*, and *Gladioli* to variety were well represented. Silver Flora medal.

Messrs. Peed and Son, West Norwood, S.E., exhibited a group of *Achimenes* in considerable variety.

Hardy herbaceous flowers were largely shown by Messrs. T. S. Ware, Limited, Feltham, *Phloxes*, *Campanulas*, and *Liliums* being largely represented. Silver Banksian medal.

M. V. Charrington, Esq., The Warren, Edebridge, exhibited a small group of Carnations, wherein were noted several good and distinct varieties. Silver Banksian medal.

Messrs. Phillips and Taylor, Bracknell, Berks, showed Sweet Peas and Carnations in numerous varieties.

Tobbies, Limited, Dereham, arranged a group of zonal *Pelargoniums*, each variety being set up in a semi-circular mound. Grandville (red), Mrs. Ashworth (white), Double Life (splashed red and pink), Aquarelle (rich pink and white), and Double Jacoby (very deep red) were the best. Silver Banksian medal.

Messrs. William Bull and Sons, King's Road, Chelsea, exhibited several splendidly grown and highly-coloured *Crotons*, of which C. *Reidii*, C. *Thompsonii*, *Flamingo*, and *Beauty* were of the best.

Mr. Charles Turner, Royal Nurseries, Slough, exhibited blooms of Carnations arranged on exhibition boards. Some of the varieties were splendidly represented; for instance, Duke of Alva, Galileo, Duke of Albany, Goldlocks, Cecilia, Falcon, Agnes Sorrel, &c. Silver Banksian medal.

Mr. E. Potten, Camden Nursery, Cranbrook, Kent, exhibited a pretty lot of hardy herbaceous flowers, such as *Gaillardias*, *Spiceas*, *Gypsophila*, *Eryngium*, &c. *Phlox Drummondiana*, about 6 inches high, was noticeable.

Messrs. J. Cheal and Sons, Crawley, exhibited hardy flowers and cut shrubs in great variety. Sweet Peas and some Dahlias were included in Messrs. Cheal's display.

Messrs. Barr and Sons, King Street, Covent Garden, showed *Lathyrus latifolius* var. *Apple Blossom*, L. l. var. *Brilliant*, *Rosedale alba* (with tall erect spikes), *Hæmanthus Nelsoni*, *Satyrion corifolium*, *Rudbeckia hirta* *Sulphur King*, and other interesting plants.

Splendid flowers of the new Roses *Ben Cant* and Mrs. B. R. Cant were shown by Messrs. B. R. Cant and Sons, Colchester.

Dr. Bonavia, Westwood, Richmond Road, Worthing, exhibited a buff-coloured variety of *Oleander odoratum*. This came from Hyères. It is very floriferous and sweet scented, and thrives well if planted out in a greenhouse.

Mr. A. Campbell, gardener to Lady Ardilaun, Dublin, exhibited several seedling self-coloured Carnations—*St. Anne's*, *heliotrope*; A. Campbell, dark crimson; *Christian de Wet*, maroon; *Louis Botha*, white, &c.

*Eichioria crassipes* in flower was exhibited by Mr. Dixon, gardener to the Earl of Ilchester, Holland House, Kensington.

A. van Meerbeek and Co., Hillegom, near Haarlem, Holland, sent several *Calla eliotiana* seedlings.

*Carnation King Edward VII.*, a scarlet self, was shown by Mr. F. M. Bradley, Church Street, Peterboro'.

*Hibiscus sinensis brilliantissimus* was sent by the Earl of Ilchester.

H. Balderson, Esq., Hemel Hempstead, showed border Carnations *Glady's Taylor* and *Mary Francis*, the former a deep flesh-coloured self.

*Lilium pulchellum*, newly introduced from China, bearing small orange-scarlet flowers, was shown by Messrs. James Veitch and Sons, Limited, Chelsea.

Mr. M. Prichard, Christchurch, Hants, showed *Astilbe New Rose*, a pretty pink-coloured variety.

Mr. James Douglas, Edenside, Great Bookham, Surrey, exhibited a collection of Carnations that comprised numerous excellent varieties, such as *The Naiad*, yellow self; Mrs. Prinsep, golden-yellow; Professor Cooper, *heliotrope* and salmon; *Horsa*, in the way of Dr. Nigel, but streaked, &c.

## NEW PLANTS.

First-class certificates were awarded to *Liliodendron macrolepis*.—A distinct and well marked species from China. The branches are freely disposed and form an effective plant, in which the glaucous colouring and tender brown of stem show to advantage. Only quite a small example was shown, but this, we believe, is the largest at present in this country. This new conifer promises to be a really good acquisition. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

*Astilbe chinensis* var. *Davidii*.—A handsome perennial, some 5 feet or more high, with the leafage of the ordinary type of *Astilbe chinensis*, and bearing a dozen or fourteen pyramidal spikes of rosy purple, a shade of colour in some respects resembling the purple Loose-strife. As an addition to first-class perennials the present plant is most notable and a decided acquisition. Doubtless when established in the garden it will form one of the most pronounced and effective of modern introductions. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

Awards of merit were given to *Carnation Louis Botha*.—A nearly pure white, border kind, very full and showy. The outer petals are large and well formed; the centre petals are faintly lined with white. Shown by Lady Ardilaun, Clontarf, Dublin (gardener, Mr. A. Campbell).

*Carnation Cedric*.—A fine yellow ground, heavily flamed and edged with brick red. This is the largest and most distinct of this class we have seen. Shown by Mr. James Douglas, Great Bookham, Surrey.

*Carnation Bookham White Clove*.—A pure white flower, of medium size, and delightfully fragrant. Shown by Mr. James Douglas, Great Bookham, Surrey.



# THE GARDEN

No. 1604.—VOL. LXII.]

[AUGUST 16, 1902.]

## EVILS OF GRAFTING.

### THE PROPAGATION OF CONIFERS.

**W**E have received the following useful article from a well-known amateur, touching upon a subject important to all interested in trees and shrubs:

Many mistakes have been made in propagating the Coniferae, and, to make matters still worse, the old erroneous doctrines are still preached and practised. The unpopularity of certain species of *Abies*, *Picea*, and *Pinus* is due to a great extent to the practice of grafting them on entirely unsuitable stocks. For instance, the species of *Abies* are worked on *A. pectinata*, of *Picea* on *P. excelsa*, and of *Pinus* on *P. sylvestris* or *P. Laricio*. In addition to this, such methods and stocks are still spoken of as the correct ones to use; though, to take one genus alone, what kind of a specimen *Abies bracteata*, *A. nobilis*, or *A. concolor* would make in twenty years' time if worked on *A. pectinata* I should not like to say—certainly very poor, even if they lived, which is doubtful. It may be laid down as a law that species of Coniferae should never be grafted but raised from seed, which can always be obtained through English firms. With varietal forms of Coniferae that will not come true from seed or that cannot be struck as cuttings, grafting must be resorted to, and if young plants of the type species are used as stocks the results will be fairly satisfactory. In the case of some of the more highly variegated *Cupressus*, &c., grafting is really the best method of propagation, as these forms are mostly of weak constitution and are not satisfactory from cuttings. In the following list the best methods of propagation are given with each genus, together with special mention of those forms which are of indifferent growth though not difficult to propagate.

**JUNIPERUS.**—The Junipers should be raised from seeds, though some of them do fairly well if propagated by cuttings. The green and glaucous varieties of *J. chinensis*, *J. excelsa*, *J. virginiana*, and *J. communis* root easily from cuttings, or can be layered with success. The variegated forms are best grafted on stocks of the species they belong to, and *J. Sabina* (The Savin) and its varieties are easily raised from cuttings or layers, the latter being a very easy way of propagating them.

**CUPRESSUS.**—This genus is divided into two sections, viz., the true *Cypresses*, represented by *C. macrocarpa*, *C. sempervirens*, &c., and *Chamaecyparis*, of which *Cupressus lawsoniana* is the best known species. With the former section seeds are the best means of reproducing the species, while the few varieties should be grafted on stocks of the parent species. The handsome *C. macrocarpa* var. *lutea* especially should be worked on the type, as it is practically a failure from cuttings, and if grafted on *C.*

*lawsoniana*, as is sometimes done, it makes a short, stumpy bush instead of a typically tall columnar tree. In the *Chamaecyparis* section *Cupressus lawsoniana*, *C. nutkatensis*, *C. obtusa*, *C. pisifera*, and *C. thyoides* are the only species, though there are a host of varieties attached to them, the forms of the three latter species, in fact, including all the various plants more commonly known under the generic title of *Retinospora*. The species should be raised from seed, which is easily obtainable and germinates readily, or in default they will root from cuttings. The varieties, with a few exceptions, are quickly propagated by cuttings, those that require to be grafted being *C. lawsoniana* var. *lutea*, the variegated forms of *C. nutkatensis*, and *C. obtusa* vars. *nana*, *nana aurea*, and *filifera aurea*. The forms of *C. thyoides* also do well when raised from layers.

**THUYA.**—These are propagated in much the same way as the *Cupressus*, viz., the species by seeds, and the varieties by cuttings or by grafting in the case of the one or two highly variegated forms. Some of the green or glaucous varieties of both *Cupressus* and *Thuya* will come fairly true from seed, from 40 per cent. to 70 per cent. being the usual quantity of seedlings true to name. Variegated forms from seed either come green or a mongrel mixture of green and variegated.

**LIBOCEDRUS.**—This should be raised from seed, as when grafted on *Thuya orientalis*—a too common method of propagation—it makes a miserable specimen. The middle pair of scales in the cone of *Libocedrus* alone contain fertile seeds.

**SCIADOPITYS AND TAXODIUM.**—These can only be propagated by seeds, and the young plants should have a fairly moist position with plenty of leaf-mould or peat to grow in afterwards.

**SEQUOIA.**—The two species of *Sequoia* should be raised from seed, and the three or four varieties be grafted on the type species.

**CRYPTOMERIA.**—This only contains one species, viz., *C. japonica*, which can be obtained from seed or by cuttings; and the varieties root readily as cuttings, though one or two of the weaker ones do better if grafted on *C. japonica*.

**ARAUCARIA.**—Propagate by seeds, which, though sometimes difficult to obtain, germinate freely and quickly.

**TSUGA.**—The Hemlock Spruces are easily and quickly obtained from seeds, and one or two will strike from cuttings; the varieties do best when grafted on the species they belong to, though *T. pattoniana* var. *glauca*, more commonly known as *Abies hookeriana*, will come fairly true from seed, about 75 per cent. being the usual quantity if the seed is obtained from good plants.

**PICEA.**—This genus has been mentioned before as being commonly grafted on *P. excelsa* (the common Spruce), which is an easy way of obtaining young plants, which, however, cannot

be recommended to form good specimens in after years. The species of *Picea* should all be raised from seed, and the many named varieties of *P. excelsa* should be grafted on the parent species. At least one-half the plants of *P. Engelmanni* var. *glauca* and *P. pungens* var. *glauca* (the Californian Blue Spruce) will be found true to name when raised from seeds, while their superiority afterwards over grafted plants is unquestioned.

**CEDRUS, LARIX, AND PSEUDOLARIX.**—It should always be remembered that these three are quite distinct genera, and for purposes of propagation should never be used in conjunction with each other, the first being evergreen, and the two latter deciduous. The species of all three should be raised from seed; the varieties of *Cedrus* should be grafted on that genus, the forms of *Larix* on the Larch, though the geographical forms of the common Larch, such as var. *rossica* and var. *sibirica*, usually come true from seed. *Pseudolarix Kaempferi*, the only representative of the genus, must be raised from seed, as if grafted on the Larch they will not thrive for long.

**ABIES.**—In this genus some of the most handsome Conifers are found, and also some of the most difficult to grow. All the *Abies* should be propagated by seeds, but if seed of the varieties cannot be obtained then they must be grafted on the parent species.

**PSEUDOTSUGA.**—This genus only contains one species, viz., *P. Douglasii* (the Douglas Fir), which is propagated readily by seed, the seedlings being of rapid growth and soon form good plants. The few varieties are grafted on the type, though the majority will come fairly true from seed, which, however, is not always to be obtained.

**PINUS.**—Perhaps no Conifer adds so much to the beauty of the landscape in winter as the Pine. All the species should be raised from seeds, and any green or glaucous varieties can also be propagated in the same way if seeds can be obtained. The golden, dwarf, and variegated Pines must be grafted on the species they are varieties of.

**TAXACEE** is usually associated with Coniferae, from which it differs chiefly by the seed being nearly or quite enclosed in a fleshy envelope instead of in a cone, the fruit of some resembling a small Plum, but a typical fruit is seen in that of the common Yew. The hardy genera are *Ginkgo biloba* (the Maiden-hair Tree), which is propagated from seed—the plant is deciduous and slow growing; *Cephalotaxus* and *Torreya* are propagated by seeds, cuttings, or layers.

**TAXUS** (the Yew).—There are only three or four species of *Taxus*, but there are a great many varieties of the common Yew, many being very handsome. The species are easily raised from seeds, layers, or cuttings. The first two methods are the best, cuttings being very slow in growth, but as seed is very plentiful in most years this is the quickest and best means of propagation. Some of the



varieties will come true from seed; the Irish Yew, however, must be struck from cuttings, as seedlings never come true. The more highly-variegated Yews grow quickest when grafted on the common Yew, and as they always keep good in after years this method can for once be recommended. Propagate *Prumnopitys* and *Saxotheca* by seeds, cuttings, or layers.

## EDITOR'S TABLE.

### BUDDLEIA VARIABILIS.

Mr. Notcutt sends from his interesting nursery at Woodbridge, in Suffolk, flowers of this beautiful *Buddleia*. It is delightful when planted in small groups, either in the shrubbery or in the wild garden. The lilac-coloured flowers are produced in tapering terminal panicles upon long side shoots which are numerous and slender; the whole plant is very graceful.

### A GOOD SEEDLING DIANTHUS.

Messrs. James Grieve and Sons, Redbraes Nursery, Edinburgh, send us a bunch of a splendid new *Dianthus* which they cultivate. It is an excellent seedling form of *Dianthus chinensis*, so far as we know unnamed. Messrs. Grieve mention that plants of this were planted out in October last, and passed unharmed through the past severe winter and spring.

### HABENARIA CONOPSEA.

Mr. Alfred Pickard, High Street, Wolsingham, R.S.O., Durham, writes: "I see you had *Orchis maculata* figured in *THE GARDEN* recently, so I send you a few spikes of *Habenaria conopsea*, just to let you see what we can grow up here in the cold north country. Some three or four years ago the North-Eastern Railway Company put an up-siding in the station here, and to do so they had to take some soil from the bank side, and since then *H. conopsea* has come up in hundreds. It is very fine this year. Do you think the seed will have been dormant, or will it have come from a small clump of the *Orchid* about 300 yards higher up the railway?"

[With Mr. Pickard's note were sent several beautiful spikes of this deliciously-scented British *Orchid*. Perhaps some reader can give an answer to Mr. Pickard's question.]

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

August 18.—Warkworth Floral and Horticultural Show.

August 19.—Royal Horticultural Society's Committees meet, Drill Hall, Westminster.

August 20.—Oxford Horticultural Show; Shrewsbury Floral Fête (two days).

August 21.—Jersey Agricultural and Horticultural Society's Show.

August 26.—Harpden Horticultural Show.

August 27.—Bath Floral Fête.

August 28.—Sandy Horticultural Show; Stirling Horticultural Exhibition.

August 29.—Bradford Horticultural Show (two days).

September 2.—National Dahlia Society's Show and Royal Horticultural Society's Meeting, Drill Hall, Westminster.

September 3.—Glasgow and Preston Shows (each two days), and York Florists' Exhibition.

September 4.—Paisley Horticultural Show (two days).

September 6.—Thornton Heath Dahlia Show.

September 10.—Royal Caledonian Horticultural Show at Edinburgh (two days).

September 16.—Dahlia Show, Royal Aquarium (three days).

September 18.—Great Fruit Show, Crystal Palace (three days).

**Lupines losing their buds.**—With reference to the notes by "J. McDonald" and "F. D. Horner," my experience is exactly similar to the former's, namely, that it is the first spikes of the white *Lupines* only that lose their buds, and the second spikes ripen them. Field mice are not the cause with me, as the buds are not bitten off, but seemed blighted and fell off when touched. These white *Lupines* are so beautiful that it seems a pity some cure cannot be found.—C. L. A.

**Royal Horticultural Society.**—The next fruit and flower show of the above society will be held on Tuesday next, in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. A lecture on "Horticultural Education and Teaching in England" will be given by Mr. W. H. Patterson, F.R.H.S., at three o'clock. At a general meeting held on Tuesday, the 5th inst., eleven new Fellows were elected, making a total of 870 elected since the beginning of the present year. The society will hold a special exhibition of Dahlias on September 2 and 3, in conjunction with the National Dahlia Society in the Drill Hall, Buckingham Gate, S.W. At this meeting only Dahlias can be shown—with the exception of flowers, fruits, &c., for certificate. All Dahlias, including those shown for certificate, must be left on exhibition until 5 p.m. on the second day, but other plants may be removed as usual. For schedule of prizes see "Royal Horticultural Society's Book of Arrangements for 1902," pages 91 to 93, or separate schedules can be obtained on application to either Mr. J. F. Hudson, M.A., Gunnersbury House Gardens, Acton, or to Mr. C. E. Wilkins, 19, Lyndhurst Road, S.E., joint secretaries to the National Dahlia Society. Intending exhibitors at the Crystal Palace fruit show on September 18, 19, and 20 can obtain an official entry form, together with schedule, on application to the Secretary, Royal Horticultural Society, 117, Victoria Street, S.W. (a penny stamp should be enclosed). Entries for this show close on September 11.

**College of Agriculture, Downton, Salisbury.**—The twenty-second summer session of this college ended on Friday week with the usual distribution of certificates and prizes. Professor Wrightson presided, and in his address spoke of the connexion between Nature study and agriculture, especially as regards trees (forestry), grasses, animals, both useful and predatory, insect attacks, and weeds. He also commented on the attention of their American and Australian students. The Bles scholarship of £10, given to the best man who has completed one year, was won by F. G. Bateman, of Somerset Road, Ealing, W.

**Italian National Chrysanthemum Society.**—We have just received the schedule of the fifth annual Chrysanthemum show of the above society, to be held in Milan on November 8 to 12 next. The society, which is under the high patronage of their majesties the King and Queen of Italy, has already accomplished much useful work, and several other societies in that country are now holding exhibitions of the popular autumn flower. The schedule and prize list contains altogether about sixty classes, and of these the first forty are exclusively for Chrysanthemums in some form or other. The prizes are, as is usual on the continent, bronze, silver, and gold medals, and nearly all the classes are open.

**Sweet Peas as pillar plants.**—To Mr. John Burn, the curator of the Abbey and other Leicester parks, is due the credit of showing in a most pleasing and convincing way the value of Sweet Peas as pillar plants grown in tubs. The way they are grown and disposed on the lawns in the Abbey Park (the tubs mostly hidden by low hedges) was the subject of general and favourable comment on the occasion of the recent successful show held in the park. The tubs which contain them are evidently old paraffin casks sawn in half. The soil they are planted in and the treatment they have received have evidently well suited the plants, for these had formed pillars upwards of 7 feet high, from 2 feet to 3 feet through, and were clothed over with lovely flowers in all the shades of colour in which it is possible to have the Sweet Pea. One of the secrets of success in their

culture in this case was evidently the persistent and timely removal of the pods as soon as the flowers were over and before they had time to form seeds. Without assiduous attention to this item of culture success such as that above mentioned is impossible of attainment.—O. T.

**Veronica cupressoides.**—This pretty rock plant should find a home in every alpine garden, however small it may be. It is quite miniature, of prostrate growth, and the foliage a pleasing light green, bearing pretty violet-coloured flowers. The position it likes best is a sunny one—the top of a rock or stone—where its roots have a chance of striking down through fissures or openings in search of sustenance.—O. T.

**Libocedrus macrolepis.**—Apart from its own intrinsic merit this *Libocedrus* is of particular interest to the lover of conifers in being a native of the Chinese province of Yunnan, whereas all the other members of the genus are found solely in the western hemisphere. The only thoroughly hardy member of the genus is *Libocedrus decurrens*, a native of California, which here forms a stately columnar specimen with deep green foliage. The Chilean *Libocedrus chilensis*, though very beautiful, is as a rule unsatisfactory in this country, being often injured by frosts, while the exceedingly rare *L. tetragona* from Southern Chili is even more tender. As a conservatory specimen *L. doniana*, from the north island of New Zealand, is very beautiful with its rich green frond-like branchlets, but it is too tender for outdoor cultivation in this country unless in especially favoured spots. It yet remains to be seen whether *L. macrolepis*, for which we are indebted to Messrs. James Veitch and Sons, Limited, Chelsea, will prove to be of permanent value as an outdoor tree. Whether this is the case or not its beauty in the young state, as shown at the Royal Horticultural Society's meeting on August 5, when a first-class certificate was awarded it, cannot be disputed, and the interest in it is unquestionable.—H. P.

**An interesting publication.**—"Bulletin de la Société Française d'Horticulture de Londres."—There is always a peculiar pleasure to those who have watched the steady growth of this deservedly popular society in receiving the annual bulletin recording the past year's work. The issue for 1901 recently to hand forms no exception to the general rule, for we note that both numerically and financially the French Horticultural Society of London still continues its career of usefulness. Its aim and objects are now pretty widely known on both sides of the Channel, and the support it receives from English and continental horticulturists, both amateur and professional, is a sufficient proof of the high esteem in which it is held. The roll of membership is now 600, a great contrast to thirteen years ago, when there were but twelve. The work is well printed and got up in the usual style, several illustrations adorning the text. Briefly stated, the contents comprise the annual report, rules, lists of the various grades of members and corresponding societies; then follow short reports of the monthly meetings, together with a full account of the annual dinner, a function that is gradually assuming an important position among the various horticultural festivities of the year. The financial statement is highly satisfactory, for it must be borne in mind that the society has no show to help the funds. A useful and ever-increasing library, of which a catalogue appears in the present volume, forms an interesting feature in the society's operations. Then follows the text of the various papers contributed by the members, a few titles of which must suffice, such as "Culture of the Eucharis," "Flowers at the Funeral of Queen Victoria," "A Chat on Water Lilies," "Cacti," "Primula obconica," "Admission and Horticultural Instruction at Kew Gardens," "Bibliographie," &c. The frontispiece is an excellent portrait of the late Mr. Thomas Rochford, with a biographical notice of the deceased by Mr. George Schneider, the president of the society, under whose able guidance it has made so much progress, and been of great service to many young gardeners at home and abroad.



**Torenia Fournieri.**—Of the several kinds of *Torenia*, the above, I think, is the best. Unlike the others, it is of a shrubby habit, and only requires the protection of a cool house, where it will bloom continuously the greater part of the summer. It is now very ornamental in the conservatory, where its lovely flowers, which are of a bluish purple velvety colour, are greatly admired. It is best propagated from seed during March or April. The seeds are very small, and will require careful attention in sowing and until after germination. The pot or pan should be shaded to keep the soil uniformly moist or failure will probably ensue. It will be found to thrive well in a compost of loam and leaf soil in equal proportions, with a little sand added. The roots will have ample room in 3-inch pots.—E. H.

**Crystal Palace Fruit Show.**—We are reminded of the approach of this great annual exhibition, promoted by the Royal Horticultural Society, by the receipt of the schedule. September 18, 19, and 20 are the dates of the show, and all entries must reach the Secretary, 117, Victoria Street, S.W., not later than Thursday, September 11, but before if possible. There are altogether 142 classes. Practical demonstrations in the art of fruit bottling will be given each day, at 3 p.m., by Mr. Fowler.

**Crimson Rambler Rose as a standard.**—Of the various ways in which this popular Rose is grown it pleases me best as a standard. For several years it has been grown here in this way and invariably flowers in the most satisfactory manner; its perfect hardiness fits it for this purpose. I have never seen a single branch injured by frost. When well grown it makes a widespread head, which when in flower gives the long flowing growth a pendulous aspect, and in this way is seen to the best advantage. It should be worked on tall well-matured stocks, not less than 5 feet in height. It is a Rose which delights in liberal supplies of liquid manure, which should be given early in the spring and again directly the flowers are past. This will encourage a free vigorous growth, which is so necessary for the following year's display of flowers. A few specimens planted away from other things have a most charming effect, especially if associated with Golden Yews. I have found it a good plan to prune as soon as it has passed out of flower. I cut away as much as can well be spared of the old growth; this has the effect of concentrating its energies into the young growth, which will give the crop of flowers the following year. I am no lover of standard Roses, but this Rose behaves so well in this form that I feel justified in strongly recommending it. Unlike the majority of Roses worked on the standard Briar, the Briar will keep pace with the head if a healthy, well ripened stock is chosen for it. In every case has this been so here. This is so seldom the case with Hybrid Roses that I thought it worth mentioning. Some of the stems have developed to the size of spade handles. The least satisfactory way of growing this Rose is against a warm wall; in such a position it soon contracts mildew, aphids, and red spider, and becomes a very decrepit object. This season it has behaved a little better than usual, owing, no doubt, to the cold weather, absence of sun, and cold nights. Another way of growing this Rose is by pegging it down, when it will quickly root and send up long fat growths, which will flower most profusely, and will quickly fill a large bed or bank; it has a most telling effect.—A., Cirencester.

**Ficus stipulata (repens) variegata.**—The tiny-growing *Ficus stipulata* or *repens* is largely employed for clothing damp and shaded walls in the stove or the greenhouse, for hanging baskets, draping stages, and similar purposes, while its still tinier form *minima* is equally as valuable. Besides these a new variety (*variegata*) was recently shown at the Drill Hall, and when better known it will doubtless become a general favourite. This variety is in all respects a counterpart of the type, except that the small deep green leaves are mottled and freckled in an

irregular manner with white, some of the sprays being very prettily marked. The variegated variety of *Ficus radicans*, another climbing species, but more vigorous than *F. stipulata*, has since its distribution, some four or five years ago, made great headway in popular favour, being grown by thousands in some large trade establishments. Another creeping or climbing member of the Fig family is *Ficus falcata*, in which the exceedingly deep green leaves are about an inch long and of such a peculiar curved shape as to suggest the specific name of *falcata*. Though less vigorous than those previously mentioned it is equally desirable and available for the same purposes. All the above are among the easiest of plants to strike from cuttings.—H. P.

### The Wise Apple.

—Often in these pages has attention been called to the beauty of fruit trees when in flower, of which we have an excellent instance in the accompanying illustration. The Apple tree in full blossom is the variety *Court Pendu Plat*, commonly known as the *Wise Apple*, because it is said to flower after all danger from spring frost is past. It certainly does flower late in the spring, and the wealth of blossom it invariably produces usually provides quite a satisfactory crop of fruit. This Apple has been mentioned before under the heading of "Hardy Fruits in Season," but its merits, especially as a late dessert Apple for the amateur and cottager, entitle it to further notice and commendation. The tree is of moderate growth, the fruit of excellent quality and invaluable for late dessert, its distinct and attractive appearance rendering it valuable for market purposes. It has the further qualification of being a consistent bearer. The fruit is of medium size, round, and rather flat; the colour is yellow on the shaded side, covered over with russet dots, but on the sunny side it is a rich deep red. When grown on the Apple or Paradise stock it forms a compact bush of limited growth, and therefore trees may be planted fairly closely together—say, from 10 feet to 12 feet apart. On this stock it also succeeds well as an espalier or cordon, and grafted on the Crab it makes a fruitful and desirable tree for the orchard. The fruits are in season from Christmas to June.—OWEN THOMAS.

**Distinct Pelargoniums.**—There has been for the last year or two a decided revival in favour of the different zonal and Ivy-leaved Pelargoniums for pot culture; indeed, the members of these sections bid fair to be soon as popular as they were in the days of the Pelargonium Society twenty years or so ago. Of late many new varieties have been brought prominently forward, and from the amount of interest evinced in them at the various exhibitions they will doubtless be much sought after. Both at the Temple and Holland House they were well represented. I was particularly struck with the



THE WISE APPLE TREE IN FLOWER IN THE ROYAL GARDENS, WINDSOR.

following distinct forms, though they are now by no means novelties, some of them having been distributed for two or three years. Of double forms far and away the most striking is *M. Alfred Erckener*, the flowers of which, arranged in a large bold truss, are of a bright orange-vermilion, in fact of a distinct yellowish shade. Other good notable forms are *Carpeaux*, blush dotted carmine; *Champ de Neige*, pure white; *Charles Gounod*, scarlet, white centre; *double Henry Jacoby*, crimson, like its single-flowered namesake; *Eugene Delacroix*, brilliant scarlet; *Gustave Emich*, vermilion, so valuable for winter blooming; *Princess Victoria*, white, with a narrow Picotee-like edge; and *Roty*, bright pink. The single varieties include *Ada Negri*, rosy carmine, white centre; *Hilda*, clear salmon; *Hall Caine*, cherry-red; *Mark Twain*, whitish freckled and flaked carmine; *Paul Crampel*, scarlet shot vermilion. The double-flowered Ivy-leaved section is now principally represented by varieties of more compact habit than was formerly the case, and which are therefore more fitted for pot culture than for vases, window-boxes, &c. Some of the forms are very beautiful, particularly *Achievement*, a cross between a zonal and an Ivy-leaf, with huge trusses of light cherry-pink blossoms; *Beauty Supreme*, pleasing soft rose; *Colonel Baden Powell*, blush lilac; *Condens's Glory*, scarlet; *Mrs. W. H. Martin*, mauve; *Mrs. Hawley*, crimson shaded violet; *Leopard*, the most distinct of all, the flowers being of a clear lilac-pink, heavily blotched with crimson on the upper petals; *The King*, deep cerise; and *The Queen*, salmon-red.—T.



## FLOWER SHOW FANCIES.

"To feed on flowers and weeds of glorious feature."

IT is a curious thing about flower shows, even the very best of them—such as those of the Temple Gardens—that they teach us so many things by side-lights; we learn from them what is wrong as well as what is right, what not to do, as well as what to do. Returning once more to the seclusion of our own gardens, what is it that we feel? Certainly it is not envy. We come to the green paradises we know by heart, more in love with them than ever, full of fresh plans and schemes for them no doubt, and with new ideas and ideals, but we have learned afresh two of the greatest secrets of good gardening—the terrible mistake of scrappiness and the beauty of the broad effect.

Among the flowers we have been looking at, it is the Roses that have left us the most lovely memories. This season, as usual, they bore away the palm, not only for beauty, but for breadth of treatment. Roses deserve the widest spaces and the best places, and had been given them. Nothing was lacking but the outdoor magic of swaying wind, cloud shadows, and the flitting of bee and butterfly, which under canvas are impossible. The absence of these lends even the loveliest flowers something of a wax-work look; but what a feast of colour, scent, and sweetness, and what a high-born dainty lady is every Rose! To be in full dress and stared at by everybody does not ruffle Roses, they are quite accustomed to it; admiring eyes are among the penalties of beauty as they are of being "queens." A poet has told us "who loves a garden, loves a greenhouse, too," but an afternoon among these flower show Roses sends us away more than ever devoted to the hardy gardening that belongs to the world of out-of-doors.

It is a long skip from these aristocrats to the little rock and alpine plants that now interest us so much and are so fascinating, that whenever we go, say, to Mr. Barr's nurseries, to look at his Daffodils and Tulips, it is impossible to do more than glance at them, because of not being able to tear ourselves away from the witcheries of the rock and water garden.

No class of plants suffers so much from being exhibited at a flower show (where there is never much room to spare) as the rock growers and alpine; most of them such small things, yet craving more than any others for generosity and room to romp about. Here comes an object-lesson. We are going to learn the evils of patchiness from these little sun-loving wildlings of rill and mountain. To see them set out, small bits and scraps of them, among a number of dry-as-dust geological specimens of rock or stone, who would imagine how lovely they are in nature, or in any place where they can be given a free hand? But the manner in which they are, and I suppose have to be, arranged at flower shows is only an exaggeration of the piecemeal fashion frequently observed in gardens, where the owners make the mistake of trying to grow too many sorts of things at once. A little piece of this, and a small bit of that, may have a museum-like interest, or the usefulness of a tailor's pattern-book, but never can give the charm that rests the eye and satisfies the heart.

The smaller flowers are the more it is necessary to grow them in profusion; then they bring into our gardens something of the joy of a Buttercup meadow, a wide heath ablaze with Furze or Heather, a field of Bluebells, or a glade that is yellow with Primroses. It is often marvellous to see the grand effects that come of common things. After visiting

a garden set out with any number of odds and ends—many of them worth their weight in gold (how very unpleasant it is to be told how much flowers cost), but looking lonely and alien—I have enjoyed, on my way home, the sight of a good stretch of White Nettle luxuriating in gipsy freedom over a roadside bank. This is how flowers of the rocky sort should grow in gardens.

The colour schemes at flower shows are often excellent, and the large handsome plants crowded with blossoms so beautifully grown, dazzle us with their perfection, but how about the little kitten-faced Pansies? Can we enjoy them so very much when they are poached like eggs, "sur le plat," each one on his own little round of cardboard? How meekly they look up at us, every little soft chin set as stiffly as if in stocks! What a contrast to these are the happy Daisies not far off, apparently quite at home in their cool green setting and in the company of kindred simple flowers. Dresden China Daisy, one of the smallest, if one of the newest things exhibited, was to be another of the pretty pictures taken home to find a place in the gallery that is never over-full.

That is the best of a good flower show, the pleasure of it lasts so long. It only begins while we are "taking in"; it is after we have left it and our lessons are learned that the truest enjoyment is felt, and to reckon up what we have been taught, and "what shall be done next?" because of it, are the prettiest compliments that can be paid to any flower show.

F. A. B.

## TREES AND SHRUBS. VERONICA TRAVERSII.

**V**ERONICA TRAVERSII is practically the only shrubby Veronica that can truthfully be called hardy, and it is doubtful if it will withstand a very severe winter, though it will pass through an ordinary English season without injury. During July it is a pretty sight, covered with its spikes of pure white flowers, which only appear white, however, when seen closely. At a distance they appear to have a pale lilac tint, which is due to the purple hue of the two comparatively large anthers found in each flower, the mingling of purple and white at a distance giving the tinge of lilac to the spikes of flower. The leaves are about half an inch long, and leathery in texture. In addition to its showiness when in flower, *V. Traversii* is a handsome evergreen, attaining a height of 4 feet or a little more and as much in diameter. It is easily propagated by cuttings, and the young plants should have their tops cut out in the spring for the first two or three years to keep them bushy; but this stopping should not be simultaneous with transplanting, or the two checks at once will seriously injure or even kill them. It is a native of New Zealand, as also is the dwarf *V. cupressoides* (*V. salicornoides*), a fairly hardy plant, with a bright golden tint in the foliage, and which makes an excellent plant for the rockery. It should be protected, however, if rabbits can get at it, as they will leave practically everything else in the winter to nibble it. The leaves are very minute, and closely appressed to the stems, which are furnished in July with short, terminal spikes of white flowers. It is a plant that might easily be mistaken for a dwarf golden *Retinospora* or *Cupressus*.

Bagshot, Surrey.

J. CLARK.

## TENDER TREES AND SHRUBS IN THE SOUTH-WEST.

(Continued from page 95.)

*EUONYMUS FIMBRILIATUS*.—Japan and India. This shrub is chiefly remarkable for the tint of its

young leafage, which is bright crimson, and gives a vivid, flower-like effect at a little distance in April. I have met with this at Tregothnan and Abbotsbury.

*Eupatorium weinmannianum*.—South America. This soon grows into a rounded bush 10 feet or so in height and as much in diameter. It bears its flat heads of fragrant white flowers in the autumn and well into the winter, the flowers being succeeded by fluffy seed vessels. It is quite common.

*Eurya latifolia*.—Japan. Half-hardy. An evergreen shrub with leaves somewhat like those of a Camellia, bearing small white flowers. There is a variegated form that at one time was used for greenhouse decoration. Tresco.

*Fabiana imbricata*.—Chili. A very decorative, evergreen, Heath-like shrub, bearing a profusion of pure white tubular flowers clustered thickly around every shoot. A fine example 8 feet in height is at Trelissick, but it is a common plant in the south-west.

*Fagus cliffortioides* (the New Zealand Beech).—A tree with minute leaves, which have given it the name of Birch in its native land. In New Zealand it is evergreen, but in this country is deciduous. A good specimen is at Enys.

*Fremontia californica*.—An extremely handsome deciduous flowering shrub, bearing bright yellow cupped flowers 3 inches in diameter with orange stamens. It often remains in bloom for months. Large plants have, unfortunately, a way of dying off when apparently in good health, several fine specimens having succumbed in this manner. The finest I now know of is one growing in bush form about 8 feet in height at Newton Abbot, but the same garden contained at one time a larger example.

*Grevillea*.—Australia. *G. rosmarinifolia*, with carmine-red flowers, forms a vigorous shrub, growing to a height of 5 feet with a spread of 7 feet. It is to be found in many gardens. At Tregothnan, *G. Preisei*, with pink and yellow flowers; *G. alpina*, red tipped yellow; and *G. sulphurea* are grown, and I have seen *G. robusta* which had been in the open for three years. All species are evergreen.

*Guerina Arellana*.—Chili. A very ornamental evergreen tree, with large leaves of a deep glossy green, bearing white flowers followed by coral-red fruits the size of a Cherry. There is a fine specimen at Greenway, 20 feet in height, which has ripened fruit from which seedlings have been raised.

*Habrothamnus corymbosus*.—Mexico. This well-known red-flowered greenhouse shrub does admirably as a bush plant in the open, as does *H. elegans*, with purple-red flowers. They often carry bloom as late as November and are frequently met with.

*Hakea laurina*.—Australia. An evergreen shrub bearing clusters of rosy-lilac flowers. Menability. I am not aware if it has flowered in this country.

*Heliocarpus cyaneus*.—Tropical America. A small evergreen tree bearing blue flowers. Tresco.

*Hoheria populnea*.—New Zealand. The Houhere of the natives. Ribbon-wood, with pure white flowers and handsome foliage. Enys and other gardens.

*Illicium anisatum*.—Japan. A half-hardy evergreen shrub, bearing clusters of ivory-white flowers. Held sacred by the Japanese, who burn the bark before the shrines of their deities. Tresco. I. floridanum, Southern States of America, bearing maroon flowers. Not uncommon.

*Indigofera gerardiana*.—India. A low, branching, evergreen shrub with finely divided foliage and bearing racemes 5 inches in length of rose-purple, Pea-like flowers. Common. There is a white variety which is rarely seen.

*Jacaranda mimosaefolia*.—Brazil. A very graceful evergreen tree with Acacia-like leaves a foot in length bearing panicles of drooping violet-blue flowers. I saw a fine young plant at Rosehill, Falmouth.

*Lagerstremia indica*.—China. A handsome deciduous shrub bearing large bright pink flowers.

*Leptospermum*.—Australia. *L. baccatum* and *L. scoparium* are the most generally met with. Both bear small white flowers and are evergreen. I have seen the former 12 feet and the latter 20 feet in height. Other species are also grown.



*Libonia floribunda*.—Brazil. The favourite greenhouse flowering shrub, bearing drooping scarlet and yellow blossoms. Tresco and one mainland garden.

*Litsea geniculata*.—Southern United States. A deciduous shrub or tree bearing white flowers in May. The largest in England is probably one at Menabilly. Twenty-five feet in height.

*Melaleuca hypericifolia*.—Australia. An evergreen shrub bearing scarlet bottle-brush flowers. Tresco.

*Melia Azedarach*.—Tropical Asia. The Bead Tree, so-called from the seeds being used for rosaries, bearing much branched panicles of fragrant lilac flowers. Leaves bipinnate and deeply serrated. Rosehill. Evergreen.

*Melanthus major*.—Cape of Good Hope. A well-known plant in sub-tropical gardening. At Rosehill it has reached a height of 12 feet.

*Metrosideros robusta*.—New Zealand. An evergreen tree bearing clusters of brilliant crimson flowers at the extremities of the shoots, in which it differs from Callistemon, whose flowers encircle the branchlets some distance below the extremities. Tresco. Thirty feet in height.

*Mitrasia coccinea*.—Chili. An evergreen shrub, bearing bright scarlet flowers. This is to be found 6 feet in height in some gardens.

*Myoporum laetum*.—Australia. Native name Guaio. An evergreen tree bearing small white flowers and having lanceolate leaves dotted with countless transparent spots. Two mainland gardens.

*Nerium Oleander*.—Mediterranean. The Oleander. This is established and flowers in sheltered nooks on the mainland.

*Ozothamnus rosmarinifolius*.—Australia. An evergreen shrub, bearing countless, minute, white flowers. Sprays if cut when the flowers are fully expanded will retain their decorative qualities for a year. It is common in the south-west, and at Trewidden there are bushes 8 feet in height.

*Paulownia imperialis*.—Japan. A hardy deciduous flowering tree, bearing erect panicles of large lilac Gloxiuia-like flowers. Owing to the spring frosts it rarely perfects these, except in sheltered sites in mild springs, but when in good bloom it is marvellously beautiful.

*Pentstemon cordifolius*.—California. A tall-growing species, bearing bright scarlet flowers in the summer. With the shelter of a wall it grows to a height of 5 feet or more. Trewidden.

*Philesia burxifolia*.—Chili. A dwarf evergreen shrub, rarely exceeding 2 feet in height, bearing drooping, pink, Lapageria-like blossoms. To be found in many gardens.

*Photinia japonica*.—Japan. The Loquat. This hardy ornamental-foliaged tree is practically hardy, and at Enys flowers annually. I believe, however, that it has not fruited. The finest specimen I know of, 15 feet in height with a head 12 feet through, is at Saltram.

*Pieris formosa*.—Himalayas. This so-called Andromeda is widely met with. The finest example is at Pentillie Castle, and is 20 feet in height with a spread of 30 feet. When this is white with its clustering flower sprays it is a lovely sight.

*Pimelia decussata*.—Australia. An evergreen shrub, bearing rose-red, globular flower-heads at the extremities of the branches. Tresco.

*Pinus Montezumae*.—Mexico. A noble and distinct Pine, good specimens of which are at Tregothnan and Menabilly, where it has fruited.

*Piptanthus nepalensis*.—Nepaul. An evergreen shrub, bearing numbers of bright yellow Laburnum-like flowers. It seems indifferent to soil, and may be seen flourishing under adverse circumstances. Common.

*Plagianthus betulinus*.—New Zealand. Ribbon Tree. Bears small white flowers in clusters. A splendid example 50 feet in height exists at Abbotsbury.

*Pittosporum*.—New Zealand. Evergreen shrubs. P. Mayi at Tregothnan is about 30 feet in height, while I have seen P. bicolor over 20 feet, and many fine examples of P. undulatum, P. tenuifolium, of which last a hedge has been made at Falmouth, and other species. All bear their little flowers in profusion in the south-west. The Japanese P. Tobira is a hardy shrub, bearing spreading flower-heads of fragrant white blossoms.

*Podocarpus andina*.—Chili. A handsome evergreen tree to be found in most gardens. At Penjerrick there is a specimen 40 feet in height.

*Poinciana (Cassipoua) Gilliesi*.—South America. An evergreen shrub with Acacia-like foliage, bearing clusters of large yellow flowers with bright red stamens. The finest specimen I have seen was in the late Rev. H. Ewbank's garden at Ryde, but I know of smaller ones in the south-west.

*Polygala grandifolia*, syns. grandis, hilariana. Bahia. An evergreen flowering shrub, the finest of its race, bearing large rose and white flowers. Tregothnan.

*Pseudopanax crassifolium*.—New Zealand. An evergreen shrub with dark green thick leaves 2 feet in length with orange midribs. Ludgvan Rectory.

*Rhapitamnus cyanocarpus*.—Chili. An evergreen tree, bearing pale blue flowers, followed by violet-blue berries. A fine specimen 20 feet in height is at Menabilly.

*Rubus australis*.—A Bramble, the only form of which is worth growing, and that merely as a curiosity, is a practically leafless one. The leaves are indeed there, but they consist merely of three midribs armed with curved spines and terminated by leaflets less than an inch in length and an eighth of an inch in breadth. A large plant at Bishop's Teignton has smothered an Euonymus bush and climbed into an adjacent Fir.

*Senecio*.—Many of the newer evergreen exotic species, such as S. Greyi, S. Forsteri, S. Heritieri, and others are grown, while in Rosehill Garden is a fifty year old plant of the Mexican S. Petasites, 8 feet in height.

*Solanum crispum*.—Chili. An evergreen flowering shrub, bearing lavender yellow-centred flowers in profusion, often reaching a height of 8 feet. Quite common.

*Sparmannia africana*.—Cape of Good Hope. African Hemp. An evergreen shrub, bearing masses of white flowers with ruby-tipped anthers, a well-known greenhouse plant. At Tresco both

the single and double forms are grown and attain a height of 10 feet. The single form is also met with in mainland gardens, where it is often in flower in February.

*Veronica hulkeana*.—New Zealand. An evergreen shrub, bearing branching panicles of pale lilac flowers, doing best with the support and protection of a wall. To be found in many gardens.

*Westringia triphylla*.—Australia. Evergreen shrub, bearing blue flowers in summer. Tregothnan. S. W. F.

## BEECH HEDGES.

THOUGH they differ considerably in impenetrability many of our hardy trees and shrubs, both evergreen and deciduous, are available for hedges, and of them the finest and most generally employed among evergreens are the Holly and Yew, while the Whitethorn or Quick stands first of the deciduous kinds. Next to this comes the Beech and Hornbeam, and concerning the first-named of the two much may be said in its favour. The Beech will succeed in dry shallow soils, even if they are of a calcareous nature, and it soon attains an effective size, while, though its rigidity may not be equal to the Whitethorn, it nevertheless forms a dense hedge, and, regarded solely from the shelter standpoint, the fact that many of the leaves often shrivel on the branches instead of dropping, serves to increase its effectiveness in this respect.

These Beech hedges, some of them of considerable height, may be occasionally seen in old-fashioned gardens, where they serve not only to keep out intruders, but also to act as a break to rough winds, for it is well known that a hedge if of sufficient density is a more effective screen than even a wall, as the rough blasts are broken up when hurled against the masses of twigs and leaves. The Beech hedges so prominent in Messrs. Cannell's nursery at Swanley, in thus acting as a wind break, are of great value from an utilitarian point of view, while they also form a decided boundary line and serve to shut out any unsightly objects. In planting a Beech hedge good well-rooted plants that have been transplanted should be



THE GREAT BEECH HEDGE AT MICKLEOUR, N.E.





A HEDGE OF AYSHIRE ROSES.

selected for the purpose, and the planting must be thoroughly carried out, as much depends upon this. When the hedge is once formed an annual clipping is all that is needed, and this is best done before the young growth gets too woody, as the action of clipping is thereby rendered much easier. Mixed hedges are sometimes recommended, but as a rule the most satisfactory way is to employ only one kind. Of the Beech it may be said that for high hedges it has no equal in quickness of growth, while its beauty is well shown in the accompanying illustration.—T.

## THE ROSE GARDEN.

### NEW ROSES AT WALTHAM CROSS.

**I**N the Waltham Cross nursery of Messrs. William Paul and Son the following Roses were very beautiful a few days ago:—

*Rose Sulphurea* (Tea).—This splendid garden Rose is likely to be much heard of in the future. The beautiful sulphur-yellow buds are produced on such erect stems that the effect on the plant is just what we have been looking for in a Rose of its colour. It will make a fine bedding kind, far better than the now little grown *Isabella Sprunt*. The expanded flower, only then semi-double, changes almost to white, yet there is a yellow shade when seen in the mass. Not the least charm of the variety is the foliage, which is nearly as rich in colour as the *Copper Beech*. Messrs. William Paul and Son are to be congratulated in giving us this fine novelty, which must rank as a garden Rose in the same degree as their *Medea* does among the show Teas. Florists, or all who grow Roses in midwinter for cutting, will find *Sulphurea* a useful Rose, the petals being so firm. This enables the buds to remain in the bud stage much longer than many Teas having semi-double flowers.

*New Climbing Rose Field Marshal*.—This wall Rose we have long wanted. The flowers are brilliant blood-red in colour, with a blossom of almost exhibition size and fullness. In colour it reminds one of *Cramoisie Supérieure*, and also in the recurved petals; the form, however, is high-centred and the flower perfectly double. It is described by the raisers as a Climbing Monthly or

*China Rose*, which description was fully borne out by the long growths displayed. *Field Marshal* will not only be a splendid wall Rose for outdoors, but it must prove just the colour wanted for conservatory or greenhouse roofs and walls, as we have no really brilliant climbers for this purpose that combine quality of blossom with vigorous growth.

*A beautiful new single Rambler Rose*.—At the Drill Hall recently this firm exhibited a quantity of cut branches of their new single Rambler Rose named *Waltham Rambler*. Its large flower-clusters are of a beautiful bright pink colour, which is well maintained until the whole corymb is developed, and the numerous golden stamens supply a charming contrast to the fresh colour of the flowers. A fine plant exhibited, dug up from the ground, gave a good idea of the extraordinary vigour of the Rose, and flowering, as it does, simultaneously with *Crimson Rambler*, it cannot but prove a most useful addition to a popular group. The peculiar and valuable trait of the multiflora Roses is the persistency with which their blossoms remain on the plant, even until the whole cluster is developed, a fact worth remembering to all who desire a fairly lasting effect from such ramblers. Many of the early-flowering single Roses are far too fleeting to be effective, although nothing can prevent them being beautiful for the short time they are with us.

*Frau Karl Druschki*.—The snowy purity of this splendid novelty is no less remarkable than its form. We seem to have obtained the ideal white Hybrid Perpetual in this Rose, although it may be wanting a little in fullness to please some exhibitors. But the extremely long buds and the splendid high-centred, half-open flowers of almost a dead white colour are found in no other variety. It reminds us somewhat of *Beauté Lyonnaise*, but is a great advance upon it in growth. It is not quite so vigorous as *Margaret Dickson*, but nearly so. Those individuals who show, and also those who use a quantity of forced flowers, would do well to secure a stock of this most excellent Rose. It is almost scentless, which is a pity. However, one cannot have every good quality in all Roses.

### ROSES FOR PERGOLAS, FENCES, AND ARCHES.

(Continued from page 101.)

*CRIMSON RAMBLER* is so showy that a garden would not be complete without an arch or pillar

of it. This Rose pays for liberal culture, which ensures highly coloured and large trusses. It is not necessarily an arch or pillar Rose, for it does capitally as a standard, or if a bush then bend over its growths and numerous trusses of blossom will be had in this way.

*Félicité Perpetue* is the best companion and contrast to the latter. Its huge bunches of white rosettes and pink buds are well known, and it is a splendid grower.

*Flora* cannot well be omitted. It is a splendid grower, and its flowers quite a good size, of a lively shell-pink colour.

*Mme. Alfred Carrière*, flowering early and late, is one of the most valuable climbing Roses we possess. Its sweetly fragrant, showy blossoms of flesh-white colour are not so abundantly produced as the climbers of the Rambler section, but individually they are better and more useful for cutting.

*Waltham Climber No. 1* is a Rose which always will yield a handsome bud of a bright crimson colour, and it is one of the best of our red climbers that are perpetual flowering.

### BUSH AND STANDARD ROSES.

The following Roses are all so good that an effort should be made to grow them somehow; even as isolated bushes or standards they would not fail to charm.

*Mrs. John Laing* (H.P.).—One of the best Roses yet raised, hardy, free, and beautiful in colour.

*General Jacqueminot* (H.P.) is still a grand red Rose, a variety that could safely be planted by the thousand for market, only I should advise procuring it upon its own roots.

*La France* (H.T.) has been particularly good this year, but I cannot say it is always so. It is a Rose that does not require strong stimulants. If a wall space be available try one on it and prune very moderately, but spread out the growths. In fragrance *La France* has yet to be beaten.

*Fisher Holmes* (H.P.) still holds a high place in the affections of Rose growers. No Rose gives a prettier bud, and it is certainly one of the best dark red kinds we possess.

*Killarney* (H.T.) is getting very popular. Even among our almost countless number of pink Roses there is yet room for a delightful Rose like this. Long budded, clear coloured, and altogether a handsome, free growing variety.

*Mme. Pernet Ducher* (H.T.).—I had never noticed the lasting powers of this Rose so much until this year. Its flowers even when expanded, the petals moving with every breeze, do not drop but hold on for some considerable time after. The handsome trusses when all are expanded make glorious decorations in glasses. The canary-yellow buds, too, are very pretty and useful.

*Corallina* (Tea).—One need never be without a red buttonhole if some plants of this splendid acquisition are procured. It is as strong and free as the old monthly, and a Rose of greater usefulness than *Papa Gontier* and others of that character.

*Mrs. Sharrman Crawford* (H.P.).—A Rose of wonderfully fresh pink hue. It makes fine buds and expanded blossoms, the latter being in much request for table decoration by reason of the stiff stems. The last one to name is

*Souvenir de Malmaison* (Bourbon), which has stood the test now of many years, and time does not destroy any of its charms. Its blush pink buds are as handsome as any Tea Rose.

AN OLD ROSE GROWER.

### THE MASSING OF ROSES.

ONE of the ways in which the Rose is best displayed, in my opinion, is by planting it in masses of one colour either in beds on the lawn or in borders.

I was much impressed and interested some few years ago when visiting the beautiful gardens of Miss



Alice de Rothschild, at Eythrope, by a successful exhibition of this manner of planting Roses. In this instance it was a long border running parallel with one of the garden walks that was planted (many hundreds of plants must have been used), and the variety made use of was Captain Christy. The plants were planted thickly, not more than a foot apart, in soil evidently well prepared and enriched by constituents well suited to the Roses' requirements, resulting in such a wealth of bloom and rich colour effect that would be difficult, if not impossible, to attain with any other flower. Some years ago masses of Roses were planted in this way in the West Terrace Gardens at Chatsworth, in large elevated beds (enriched by handsomely worked stone walls). This was decided upon in a great measure to reduce the number of ordinary tender bedding plants previously made use of. The varieties chiefly planted there were China Roses; the habit of these, the length of their shoots, drooping over the sides of the beds, and rising to a good height in the centre, together with the well-known floriferous character of these varieties, and their almost perpetual blooming, fit them well for the occupation of such beds, certainly in this case the substitution of the Rose for the common and prosaic bedding plants proved a success in every way, and I doubt not that there are beds in many gardens now occupied by a number of expensive, fleeting, and common-place bedding plants that could be made infinitely more interesting and beautiful by the substitution of the Rose, as in the case above mentioned. In another notable garden, not far from London, in which I had the pleasure of spending a day last summer, had been adopted this manner of planting Roses, with a decidedly striking and beautiful effect. In this case circular beds were planted on the margin of the lawn, between coniferous and other ornamental trees, and to my mind the association was most effective and beautiful. To be successful in this manner of growing Roses it is essential to guard against planting Roses of poor constitution or of feeble growth. These are of no use whatever for this system of Rose growing. It is also essential to have a deep, rich, and well-drained soil, in which a considerable amount of lime should be present; a mulch of short, well decayed manure should be placed on the surface, and a liberal application of water given in hot dry weather. Objection may be taken by some to the surface manure as being offensive to the eye, but planted closely as the Roses must be, when they are in foliage and

bloom every particle of the border will be hidden from view. The best time to plant Hybrid Perpetuals (and these and Hybrid Teas are the best for massing) is undoubtedly in the autumn (the end of October), although they may be planted with varying success from that time to the end of March. As to the distance apart they should be planted this must be governed by the size and strength of the plants and also the variety, but none should be planted at wider distances than a foot. To produce the finest blooms disbudbing must have timely attention. The following are amongst the best for this system of planting:—

*Crimson.*

Marie Baumann  
Fisher Holmes  
Captain Hayward  
Duke of Edinburgh

*Pink.*

Mrs. J. Laing  
Mrs. W. J. Grant  
Mrs. R. G. Sharman Crawford  
Mme. Gabriel Luizet  
Caroline Testout

*Red.*

Ulrich Brunner  
Suzanne M. Rodocanachi  
François Michelon  
Marquise Litta

*White or Flesh Colour.*

Merveille de Lyon  
Margaret Dickson  
Kaiserin Augusta Victoria  
Captain Christy  
Bessie Brown  
Mildred Grant

O. T.

## NATURAL GARDENING IN SURREY WILDS.

### TROPEOLUM SPECIOSUM.—FACTS AND INFERENCES.

TEN or twelve years ago I planted a few healthy roots of this lovely creeper in some very light soil in which several large specimens of *Nephrodium Filix mas* had been growing for more than twenty years. The situation was at the foot of a wall covered with Ivy, which had grown very freely and extended a couple of feet from the wall.

The soil in which the *Tropæolum* grows has not been dug or otherwise disturbed for many years, and was not in any way prepared by me for any plants or Ferns. The aspect is north-east, and, except in early summer, in the morning for two or three hours, is in complete shade. The young shoots of the *Tropæolum* are naturally well protected by the Ferns in spring and summer, and about the middle of June are seen to appear amongst the undergrowth, and then a very moderate amount of water is given in dry warm weather, but I do not think the roots of the *Tropæolum* or the

Ferns amongst which they grow can ever get really wet.

Each year the twining stems of the *Tropæolum* have increased in length, strength, and in the number of flowers they bear, and several of the blue berries formed last year ripened. The less the delicate shoots of the plant are touched the better. Any attempt at training usually fails, and the plant naturally makes such beautiful and graceful wreaths of its own accord that it is a pity to interfere at all. The plant is in perfect health, and evidently growing in a situation and under conditions that suit it perfectly. If it continues to improve for another year or two it may extend over a space 20 feet long by 8 feet high. No manure has been given, and it is growing in a very light sandy soil, which has not been forked up or disturbed for the last twenty years, but of course much vegetable matter from decayed leaves and "fir pins" has accumulated from year to year. Many of the fir trees in the copse hard by are 80 feet high with bare trunks, and the *débris* from them must be very considerable in every part of this garden. The ground in which the *Tropæolum* grows during the greater part of the year must in fact be dry. The flower buds are now appearing.

I have been much surprised at the really magnificent growth made by the Ferns, American and native, in the thin layer of very light soil which overlies many feet of very dry gravel. Even the *Osmundas*, the *Struthiopteris*, the *Onoclea sensibilis*, and many others grow very large, and some are on sandy banks, hardly receiving any water during many months. In short, a garden which in fact is but a piece of reclaimed ordinary common, and in part fir copse, seems to suit a very large number of the most beautiful and interesting plants which can be grown in our climate, and all ordinary bulbs, as well as *Primulas*, *Polyanthuses*, &c., not only flourish, but increase by division and self-sown seed without trouble or interference.

July 28, 1902.

F. R. S.

## WATER GARDENING.

### THE BEST NYMPHÆAS AND HOW TO GROW THEM.

Few phases of gardening have made more rapid progress during recent years than has water gardening, and much of the popularity of this is undoubtedly due to the increased interest taken in Nymphæas and their culture. Many varieties of these Water Lilies have of late years been introduced to our gardens from France and America—varieties that are remarkable for their extreme beauty, hardiness, and vigorous growth.

The delights of water gardening appear forcibly to appeal to Mr. Leopold de Rothschild, for in the lake in the picturesque grounds of Gunnersbury House one may see what is perhaps the most representative collection of Nymphæas in English gardens, and the margins of the water are clothed with many handsome moisture-loving plants. Mr. Hudson has altogether transformed the aspect of the lake at Gunnersbury by his successful cultivation of the Water Lilies, of whose vigour and arrangement the accompanying illustration gives some idea. The clumps of the numerous varieties are arranged informally over the surface of the lake, more particularly towards either side, and the distinctive characteristics that each variety possesses, in the mode and vigour of growth, disposal of flowers, &c., add to the charming irregularity and natural beauty of the effect.

The cultural requirements of the hardy



IN A SURREY WILD.



Nymphaeas are simple and easily supplied. Messrs. James Veitch and Sons, whose experience with these plants is unusually extensive, say that any pool of water or pond of moderate dimensions, and from 1½ feet to 2 feet deep, will suit them admirably.

The best months for planting Nymphaeas are June, July, and August. They should first be planted in baskets, previously filled with good loam, taking care to make them firm. The baskets are then lowered into the water in places where the Lilies are desired to grow. The baskets will not decay for several years, and by that time the Nymphaeas will have become well established.

Some of the stronger growing sorts, the marliacca hybrids for instance, if not planted fairly deep, say 3 feet, will in a year or two push their leaves out of the water, making quite a massive clump, and thereby losing somewhat in beauty. Mr. Hudson remarked that he knew of Nymphaeas succeeding even when planted 6 feet deep or more. Of course with the less vigorous growing ones shallow planting is quite satisfactory, for

the long slender petioles spread out and the leaves float gracefully. A list of some of the best Nymphaeas is appended.

White.—*Alba candidissima*, with large pure white flowers, an early and continuous bloomer; *alba plenissima*, pure white, more double than the former; *caroliniana nivea*, sweet scented; *marliacea albida*, fragrant, pearly white flowers; *odorata*, the North American Water Lily, which produces its cup-shaped flowers very freely; *pygmæa*, the smallest of Nymphaeas, fragrant.

Yellow.—*Chrysantha*, yellowish red, with bright orange stamens; *fulva*, light yellow, tinted with red; *flava*, citron-yellow; *marliacea chromatella*, a beautiful straw colour with yellow stamens; *odorata sulphurea* and the variety *grandiflora*, sulphur-yellow, fragrant; *pygmæa helvola*, flowers slightly larger than *pygmæa*, sulphur-yellow; *Seignouretti*, light yellow, tinted with carmine.

Dark.—*Atropurpurea*, dark crimson, large flowers; *gloriosa*, rich purple, one of the most beautiful; *Laydekeri fulgens*, rich crimson and orange; *marliacea ignea*, one of the most

richly coloured, crimson; *odorata exquisita*, deep rose-carmine; William Falconer, the deepest coloured hardy Nymphaea yet raised.

Pink.—*Caroliniana*, clear rose-pink; *Laydekeri rosea*, delicate rose-pink; *marliacea carnea*, blush; *marliacea rosea*, bright pink; *odorata rubra*, rose-pink; *odorata suavissima*, a beautiful pink; *tuberosa rosea*, delicate pink.

Other good Nymphaeas.—*Ellisiana*, brilliant carmine-purple; *Frœbelli*, bright carmine-red; *odorata luciana*, a deep and rich rose-pink; *robinsoniana*, red toned with yellow.

## THE MOUNTAIN PRIMULAS.

(Continued from page 82.)

SPECIES REQUIRING SILICA OR SPECIAL CULTURE.

*P. CAPITATA* (Hook.) syn. *P. globifera* (Griffith).—From Sikkim and Bhotan, between 12,000 feet and 15,000 feet. The most beautiful of all the Primulas; its deep blue-purple, globular



WATER LILY GROUPS ON THE LAKE AT GUNNERSBURY HOUSE, ACTON, NEAR LONDON.



head of flowers with silvery calyces is of distinguished elegance. Unfortunately, it is not common in cultivation, what is generally sold for it being the common *P. denticulata* or its varieties. *P. capitata* has narrow, elliptical leaves, finely serrated, covered on both sides, but especially beneath, with silvery white powder; the flower-stalk, 6 inches to 8 inches high, is also freely powdered with the silvery farina; flowers numerous in a globular head of a very deep blue-purple, covered outside with white powder; lobes of the corolla elegantly cut; calyx also covered with silvery powder. The flower-head, in consequence of the large number of flowers that compose it, remains long in beauty; we have even known them to last for several months. It flowers at all times of the year, according to the age of the seedlings. We have often had them lasting from August to November, though they usually flower in spring. This plant must have an absolutely non-calcareous soil, such as peat; it does extremely well in sphagnum. It has been killed at Geneva in the winter, but not at La Linnaea, where, at an altitude of 5,360 feet, it has a winter covering of snow, a condition that it probably enjoys in its native place in the Himalayas, where it grows at about 15,000 feet. I do not think that it is killed by the cold, but more likely by the stagnant and persistent damp. Moreover, we must consider it to be a plant that is neither exactly a biennial nor monocarpous, but that has a short lifetime. But it yields a quantity of seed that is easily raised if sown in very sandy, non-calcareous soil.

*P. erosa* (Wall.) (Bot. Mag., t. 6916 A.).—Mountainous and lower regions of the Himalayas from Kumaun to Bhotan, between 4,500 feet and 10,000 feet. This plant, sometimes considered a variety of *denticulata*, is, in fact, quite distinct from it, having a rhizome without fleshy scales, and also by its obovate-lanceolate, obtuse leaves, which are not mealy and are more deeply and regularly toothed, by its silvery-powdered calyx, and by its flowers of a light lavender colour. I grew this plant for many years in peat, but have lost it of late, and when I have asked for it have received *P. denticulata*, though I believe the true *P. erosa* is in cultivation in England.

*P. Forbesii* (Franchet).—A native of Yunnan. A small biennial (?) plant, very floriferous. Franchet, the botanist, gave me some seed ten years ago, when he gave it also to some botanical gardens. It is a notable acquisition in horticulture. Unfortunately, it is not hardy with us, and, if I include it in the present treatise, it is because, from its prolonged season of flowering, it is a valuable plant for the decoration of the rock garden. The leaves are small, ovate-lanceolate, pubescent, boldly toothed, and with a more or less long stalk;

flowers of a fine rose colour, in groups of five to eight, in three to five superimposed ranges of whorls, which flower one after another. This plant likes peat and sun, but also needs a moist atmosphere.

*P. megaseaefolia* (Boiss.).—From the mountainous regions of the Lazistan, near Rhizé, between 900 feet and 1,000 feet, and from the mountains of Persia. I have already described this species—new to horticulture—in THE GARDEN.\* It is peculiar in that it belongs to a group of which all the other types are



PRIMULA SIKKIMENSIS.

(From a drawing by

H. G. Moon.)

Chinese, while this one, isolated far away and extremely rare, appears on the borders of the Black Sea, where Balansa found it in 1866. Boissier described it in "Flora Orientalis,"† but it was only in 1900 that Mr. Carl Sprenger, of Naples, brought it into cultivation. It is a very handsome species, with the leaves oval-oblong, rounded or cordate at the base, leathery, of dark green colour and smooth surface, often red-brown above and strongly ribbed; flowers large, of a more or less dark rose-lilac colour, with the tube of the corolla of a bright orange colour, arranged five to fifteen and sometimes more in a wide panicle at the top of a thick stem that is downy below and has a height of 8 inches to 16 inches. Boissier says that it blooms in May, but in the Jardin alpin d'acclimatation it is in bloom all the winter, and this season it has been in full flower from the end of November till the end of March. I consider that it is a plant with a great future,

and that we may well be glad of its introduction. It is very easy to grow, but cannot endure severe winters. In consequence of its rarity and that we have had it so much asked for I have not as yet been able to use a single plant experimentally, but hope to do so next winter as we have been able to propagate a considerable quantity. It is difficult to grow from seed, as it germinates very slowly.

*P. mollis* (Hook.), Bot. Mag. t. 4798.—From Bhotan in the Himalayas. An inconspicuous and yet pretty plant; leaves with long petioles, cordate, downy on both sides; petiole covered with outspread white hairs; flowers deep crimson with red tube, in two or three superimposed but irregular whorls of fifteen to twenty. May to July. This plant requires a porous soil and a half-shaded place; it dislikes lime and prefers peat. H. CORREVEON.

(To be continued.)

## AN ARTIST'S NOTE-BOOK.

### PRIMULA SIKKIMENSIS.

ONE of the most graceful and beautiful of all hardy Primulas is the "Sikkim Cowslip," yet so far as its general cultivation is concerned it is a neglected plant—neglected in the sense that so few care to make it the feature it should be in any garden where it is grown. The plant is well known to all hardy plant lovers, yet how many of the latter can ever say they grew a bed of even fifty plants of it in such a way as to display its garden value and decorative character, much less the grace and charm that render it unique among the plants of higher altitudes. Not a few of the Primulas of the high mountain ranges are of difficult cultivation in British lowland gardens, but this fine Sikkim Primula is among the most easy to grow that we know. There are, however, one or two points, and in truth they are essential details in its cultivation, that must not be disregarded if the plant is to yield its full value.

The points referred to are, briefly, that the species must be regarded as only of biennial duration; and, secondly, that it be given a wet boggy place to grow in. Given these this fine plant in its year of flowering will produce a stem 2 feet high, surmounted by a number of flowers, pale yellow in colour and drooping, and varying from three dozen to five dozen in a single head. All that is required from the first is to grow the seedlings quickly, and plant them early in the positions in which it is intended they shall flower. For example, with the seed sown in January or February the young plants may be transplanted into 4-inch pots in early May, and after six weeks in the pots plant them without more ado in their boggy bed. Where the seed is to be had in the later summer months, by sowing it at once an earlier germination should ensue. In this case the young plants may be planted out as early as April, the chief object of so doing

\* THE GARDEN, April 13, 1901, page 270.

† "Flora Orientalis," Vol. IV., t. 26.



being to obtain as prolonged a season as possible, for upon growth in the first year will largely depend the good flowering to follow the next year. Treated in this way the plant is one of the finest of the Primrose family, and commencing to flower at the end of May lasts many weeks in good condition.

In those instances where an entire bed cannot be devoted to it, colonies should be planted near such wet-loving subjects as the *Dentarias*, *Trilliums*, *Cypripedium spectabile*, and others; or small groups may be planted in prepared soil about the margin of the lake or pond. Indeed, in any position where the root fibres get in touch with moisture there will this plant be more or less happy and effective. In its native habitat, where the plant is said to cover acres of ground, it is ever found in wet and boggy places and at great altitudes, often 15,000 feet or 16,000 feet. In this country, when it is required to obtain seeds, if possible the plants should be in full sun, with the roots near to constant moisture; this, coupled with artificial fertilisation, is the best plan to adopt. In my experience the plant is most vigorous in a soil consisting chiefly of loam; a good depth of this, with a little old manure, sand, and leaf-soil added, serving quite well.

E. JENKINS.

## NOTES ON HARDY PLANTS

### RAYLESS YELLOW TUFTED PANSIES.

IN recent years there has been more advance in yellow tufted Pansies (*Violas*) than in those of any other colour. Since the rayless varieties were first distributed this advance may be traced, and now the names of really beautiful sorts are, if anything, too many. Of course, there is room for improvement, but the advance should be made in the habit of the plant, the substance of the flowers, and also in yellows of distinct shades of colour. In *Pensée d'Or*, one of the finest *Violas* raised by the late Dr. Stuart, we have a charming plant, with medium-sized rayless deep yellow flowers. This plant may be regarded as an ideal one for the border, as its habit is very tufted and its free-flowering propensity most pronounced. What is wanted now is a series of good things in other shades of yellow. There is room for those of a pale yellow colour, others of primrose or slightly deeper colour, and others still of the brightest yellow. Last season I made a selection of a few seed pods from the new rich bright yellow, Mrs. E. A. Cade, and the batch of seedlings from that handsome sort has given me a most interesting progeny. There are many really first-rate flowers, and these are developing on plants of very good habit. There are several quite selfs, and the blossoms are neatly cut and of good form. Already it has been possible to make a selection of the best, and their propagation will be proceeded with without delay. That the yellow rayless sorts will be added to from this batch of seedlings I feel quite confident, and another season should see them represented, the only satisfactory one of illustrating their true value as bedding plants. Interesting crosses have been made this season, and of these naturally one has great expectations.

D. B. CRANE.

### A NOTE FROM KIRKCONNELL, NEW ABBEY, N.B.

#### CAMPANULA LACTIFLORA.

THIS showy *Campanula* does well in the rather peaty soil in the Kirkconnell gardens, and the plants show a vigour and attain proportions seldom seen. The shades, from dark purple-blue to a creamy white were all pleasing, and the large pyramids of bloom given by the plants were very attractive.

#### XEROPHYLLUM ASPHODELOIDES.

This is another plant which seems to luxuriate at Kirkconnell, and one plant in particular had sent up several strong spikes of the creamy flowers of this distinct and little-cultivated Turkey's Beard.

#### DELPHINIUMS.

Some of Kelway's best *Delphiniums* adorn the back of the long borders devoted to hardy flowers, but this season they are showing signs of requiring lifting, manuring, and replanting, the flowers being smaller and the spikes less effective than usual. This is to be taken in hand in early autumn, and next year these noble Larkspurs will be probably as fine as usual. In some soils they seldom need replanting, but at Kirkconnell they are evidently the better of more frequent renewal of the soil than in many places.

#### MARTAGON LILIES.

There is a fine stock of the Martagon Lily in these gardens, some apparently dating back for many years. One seldom sees so many plants of the double Martagon, of which there are many clumps. The white forms are in quantity as well, and there can be no question as to the superiority of that one which seems to be free from the habit of fasciation, which destroys the beauty of the white Martagon wherever it occurs. The better variety grows taller and the flowers look whiter and prettier. The common single Martagon is also plentiful, and *L. Martagon dalmaticum* grows tall and flowers freely, though it does not increase so rapidly at the root as some of the others.

#### THE OLD ROSES.

I have before spoken in THE GARDEN of the old Roses in this garden, and they were practically all in bloom at the time of my visit. The dull season has not been so favourable for some of the centifolia type, but the others were giving a profusion of bloom. At my request some flowers were sent last year to Mr. R. P. Brotherston, who makes a study of these old Roses, and I was glad to learn from him that some were unknown to him before. There are great bushes of the majority at Kirkconnell, one of my favourites being a pink one, known there as Swiss Boy, which has been grown there for very many years.

#### HELIANTHUS TOMENTOSUS.

This Sunflower, although not yet in bloom, promises to do remarkably well at Kirkconnell, and the vigorous plants gave a promise of flowers equal to the ones which delighted those who made the acquaintance of this Sunflower at the shows last year when shown by Mr. Perry as *H. mollis*.

#### PLATYCODONS.

These have been grown rather largely for some years, and they are again showing plenty of flower, and are strong and vigorous.

#### ORCHIS MACULATA SUPERBA.

As may be expected from the peaty character of the soil and the low and rather damp position of the garden, hardy Orchids, of which several are grown, do remarkably well. *O. maculata superba*, known as the Kilmarnock or Miss Hope's Orchid, is, however, by far the finest of those cultivated, and it was a pleasure to see so many fine spikes. It was a pet plant of the former gardener, the late Mr. John Harper, and his successor, Mr. J. M'Gill, seems to take an equal pride in its cultivation. There were many other interesting things to be seen in Mrs. Maxwell-Witham's fine old garden, but space will not permit of further details.

S. ARNOTT.

## RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for August contains portraits of

*Echium Wildpretii*, a native of the Canary Islands.—This is a fine tall growing species with bunches of bright rose-coloured flowers arranged all round the upper portion of the tall stem surrounded by numerous narrow hairy leaves.

*Decaisnea Fargesii*, native of China.—This is a

plant of merely botanical interest, with pendulous green flowers.

*Heterotoma lobelioides*, native of Mexico and Guatemala.—This is also known under the synonyms of *Myopsia mexicana* and *Lobelia calcarata*. This is a most curiously formed but bright and ornamental flower of blood-red and yellow colouring.

*Fritillaria Ashkabadensis*, native of Central Asia.—This is a Crown Imperial with green flowers of no beauty and merely botanical interest. It was collected by Mr. Sintenis, and first flowered at Warley Place Garden by Miss Willmott, V.M.H.

*Gelsemium sempervirens*, native of the Southern United States.—This handsome greenhouse climber is also known under the synonyms of *G. lucidum*, *G. nitidum*, *Jeffersonia sempervirens*, *Bignonia sempervirens*, *Syringa volubilis virginiana*, *Anonoms sempervirens*, and *Carolina Jasmine*. The large tubular flowers are of pure white inside, shaded with pale yellow outside, and are produced in pairs at the axil of every leaf at the ends of the branches. Although introduced so far back as 1640, and figured by Parkinson in his "Theatrum Botanicum" in 1641, it has never been since figured in any English horticultural work.

The first part of the *Revue Horticole* for August has a portrait of *Laelio-Cattleya* Mme. Marguerite Fournier, a lovely hybrid resulting from the fertilising of a *Cattleya labiata* by pollen from *Laelia digbyana*. The seed was sown in March, 1897, and the first flower opened on February 1, 1902, in M. Fournier's garden at Marseilles.

The *Revue de l'Horticulture Belge* for August contains portraits of *Celsia Arcturus*, a beautiful yellow-flowered old greenhouse plant, and of *Eriostemon myoporoides*, a very pretty and well-known greenhouse shrub. W. E. GUMBLETON.

## ORCHIDS.

### NOTES FROM THE WOODLANDS.

NOW in flower at the Woodlands are two beautiful new hybrid Orchids, or rather new varieties.

#### LÆLIA GRAVESIÆ VARIETY.

A handsome form, probably the finest yet known. It was raised from the same specific parents, viz., *Laelia dayana* and *Laelia crispata*, but different varieties to those used with the original. The flowers are of medium size, but of ideal shape and colouring. The sepals project slightly forward, their bases overlapped by the petals. Both are of a blush shade of magenta-rose, slightly darker in the centre. The lip has a compressed and rather narrow tube, which, if anything, serves to emphasise the bold curves and comparatively large size of the lamina. The rich depth of colour, madder-crimson, deepened with Tyrian purple, is exactly that which would be anticipated from the two parents, both of which have very dark labellums, a darkness further accentuated in this hybrid by dusky lines, which replace the keels of the *Laelia dayana* parent.

#### CATTELEYA MISS MEASURES.

The original hybrid named in compliment to Miss Measures was raised from *Cattleya luddemanniana* and *C. velutina*, the first-named having carried the seed vessel. In the present form the parents are the same, but their functions were reversed. The result is even more pleasing. The flowers approach in size those of the pollen parent, and present a novel combination in colour. The sepals and petals are of a similar tint to the Barbary Dove, plus a delicate tinge of rose, just enough to give warmth to them. The labellum is almost flat, the reflexed form of *C. velutina* being counteracted by the influence of *C. luddemanniana*. The lamina is of a deep purplish red, shot with crimson and flecked, rather than reticulated, with white. From the base, radiating into the throat, are rich old gold lines of varying widths. There is every promise of this variety proving of



exceptional beauty as the plant gains strength. Near this hybrid stood a fine example of one of Mr. Measures' very old favourites, viz., *Lælio-Cattleya Exoniensis*, the deep purple of the fluted lip contrasting well with the rose sepals and petals. It is interesting, as being one of the oldest of hybrid Orchids, yet still retains a premier position owing to its fascinating beauty.

#### LÆLIO-CATTELEYA ELEGANS.

Just at present this princely collection presents a grand sight. Scores of varieties are now in flower. Many of the plants are veritable specimens, and each bears several spikes. A new variety, *L.-C. elegans* var. *Hilda*, was noticeable and indeed striking—a grand form. Individually the flowers are  $7\frac{1}{2}$  inches across, the petals of which, with the sepals, are a bright shade of pure purple, with deeper veins. The sepals bear a few spots, minute in size, but conspicuous from their deep colour, a character derived from the *Cattleya* parent. As in the majority of the varieties of *Lælio-Cattleya elegans*, the lip is wonderfully vivid, the whole of the front lobe being an intense purple-crimson, radiated with slightly raised ridge-like veins, the colour extending to the very foot of the column in a clearly defined wedge-like stripe. The side lobes are white, almost entirely so on the inner surfaces, but slightly suffused with rose on the outer. The apical angles are of the same brilliant colour as the major portion of the lip, and gradually fade to white.

*LÆLIO-CATTELEYA ELEGANS IMPERATRICE* is also a splendid variety, in every way worthy of its name. The flower is equal in size to that of the preceding, but with the anterior lobe of the lip of even greater width. The sepals are of that peculiar but pleasing shade of fawn or tawny-fawn seen in some varieties of *elegans*, in this instance tenderly touched with rose. Equally characteristic is the wonderful labellum of deep rich velvet-like crimson, darkened with purple-crimson, and slightly dashed with magenta at the edges. The almost triangular apices of the side lobes are of the same colour, shading to cream-white on the inner surface of the tube excepting that immediately beneath the column in a broad band of plum-red. Externally the tube is soft rose, flushed and dashed with crimson beneath.

#### CYPRIPEDIUM MARCHIONESS OF SALISBURY.

In one of Mr. Measures' *Cypripedium* houses a very beautiful hybrid, of the *barbato* - *bellatulum* group, attracted attention. It was obtained from *bellatulum*, fertilised with the pollen of *barbatum superbum*, Sander's var. The dorsal sepal is a soft rosy peach colour, shaded with rose madder, marked and spotted with crimson; the petals have a similar ground colour, but are thickly spotted with maroon. The delicately shaped shell-like lip is suffused with carmine-rose. The plant was given a first-class certificate by the Royal Horticultural Society on November 12, 1895, but has greatly improved since then.

Quite a contrast to it, yet equally attractive, though in a different way, was a well flowered plant of *Cypripedium* *Frau Ida Brandt*, a hybrid between *lo grande* and *youngianum*. It will be noticed that both the parents of this hybrid are themselves hybrids, hence it has a rather complex parentage. None the less it is very beautiful, one of the finest of all *Cypripedium* hybrids. The tall scape bore four flowers, each very large. The dorsal sepal is soft white, shaded with green at the base, tinted with rose, and spotted with chocolate, arranged in lines. The long, broad, drooping petals are exquisitely shaded with pink-magenta, spotted with dark purple-maroon, shaded with

green, and near the upper margins are a few prominent polished purple warts. The pouch is a warm red-brown, flushed with magenta. This variety throws *Cypripedium Morganæ* entirely in the shade. ARGUTUS.

## THE INDOOR GARDEN.

### CARNATIONS AT TRENT PARK.

RESULTS obtained by Mr. Parr, head gardener on the above estate, conclusively prove that he thoroughly understands the cultural requirements in every respect of Carnations. It is doubtful if better all-round plants could be shown, and as very fine Malmaisons and their culture are of general interest Mr. Parr was approached in

carefully seen to, and as small a pot as possible used at this stage. The compost at this and all succeeding shifts is firmly pressed in, particular attention being given to this point when the layers are finally moved into the flowering pots.

Throughout the winter the plants are kept in a cool airy house, as near the glass as they can be, the points considered absolutely essential being the reduction of air only when really necessary and strict care in watering. Each plant must be dry before water is administered, and then a thorough soaking is given. Attention to watering and ventilation is considered of vital importance.

During the winter the syringe is entirely withheld, but as the sun gains power slight dampings are made on the stages and floors, and an occasional "dew over" is given to the plants about midday or a little later—always however, with discretion.

With the exception of a few quarter inch and



A HOUSE OF MALMAISON CARNATIONS AT TRENT PARK, NEW BARNET.

(The residence of Mr. F. A. Bevan.)

the hopes that should he use any special treatment the information might be given to readers of THE GARDEN.

Mr. Parr, however, emphatically disclaims any secrets connected with them. Briefly, he ascribes his success with them to doing the right thing at the right moment and avoiding any tendency to force the plants.

He is by no means an advocate of hurrying where Carnations are concerned. Each layer is carefully selected, preference being given to a medium-sized shoot with healthy foliage than to one in any way coarse or fleshy. Healthy foliage is absolutely essential; pipings are also taken, but never when sufficient layers can be obtained. These are potted as soon as rooted, the compost used being a good loam of medium texture, obtained from sweet pasture land and stacked for twelve months, coarse sand, and a little leaf-mould; drainage is

half inch crushed bones, placed in the bases of the pots, and a little bone-meal and wood ashes incorporated with the compost when the plants are given their final potting, no artificial manures are used, and to this, the free admission of air, care in watering, and selection of young plants Mr. Parr considers is due the absence of disease.

Fire-heat is always ready to be applied, but only used when it cannot be dispensed with or in very damp and foggy weather—enough to prevent the atmosphere becoming surcharged with moisture.

Green-fly, the chief enemy, is kept at bay by gentle fumigations with XL All vaporiser, a moderate dose being quite sufficient if applied before the insect has time to obtain a strong footing.

The aim at Trent Park is to obtain blooms in quantity with quality. Where cut flowers



are required in abundance the first-named point must be considered, hence disbudding is not practised to nearly the same extent as would be the case were exhibition blooms alone required, nor, judging from the plants in bloom now, is severe disbudding really required. As the bloom buds appear, manure water—the liquid form obtained from the stables—is given, the applications becoming more frequent and gaining in strength as the flowers approach maturity. This forms the only manurial aid the plants receive, with the exception of that given in the compost, and occasional waterings during their growth of clear soot water, very weak.

Plants which are grown for specimens receive identical treatment, except that liquid manure is given in slightly stronger doses. To summarise: Success is obtained by studying the plants, by great care in watering and ventilating, by firm potting, fresh air, and judicious feeding. J. G.

## USES OF BRITISH PLANTS.

V.—ROSACEÆ.

(Continued from page 64.)

**AVENS** (*Geum urbanum*).—This was much used in the Middle Ages in drugs for wounds; and also for drinks on account of the aromatic flavour of the roots or rhizomes. They were used in parts of England to flavour beer and wine. It is also called Herb-Bennet.

**Strawberry** (*Fragaria vesca*).—The Wild Strawberry, so common in woods, is a familiar plant. A variety of species is cultivated as the "Hautboy," i.e., Haut Bois, whence it came, or the "High Woods" of Bohemia. The Strawberry has been long cultivated in England, as well as the Alpine form (*F. collina*). It is a curious fact that this is the only one which can be grown with satisfactory results in Malta, as the ordinary large fruited garden sorts of American origin fail to ripen. It was called streowberige in the tenth century. The syllable streow means "straw" and refers to its runners resembling straws (Skeat). The stalks, probably the runners, were used in medicine in the fourteenth century and called "Streberwysses." It was first cultivated in the reign of Edward I.

**Marsh Cinque-Foil** (*Potentilla Comarum*) is a herb growing to 1 foot or 2 feet high in hogs and ditches, having dull purple flowers, being commoner in Ireland than England. It has a strongly astringent root or rhizome, formerly used in tanning. It also yields a yellow dye. It has been stated that the Irish used to stain their milk pails with it.

**Tormentil** (*Potentilla Tormentilla*) is a small plant abounding on heaths, recognisable by the flowers having four yellow petals. The thick root-stock is very woody and extremely astringent, 1lb. equalling 7lb. of Oak bark in this respect. The root-stock also yields a red colour which has been imparted to leather and wood in Lapland, &c. It is still retained in the Pharmacopœia for its valuable astringent properties.

**Ladies' Mantle** (*Alchemilla vulgaris*) is allied to the Burnets, and, like them, is astringent. The leaves are eaten by cattle, especially where it grows in abundance in meadows, as about Buxton and other hilly regions.

**Agrimony** (*Agrimonia Eupatoria*).—Like the preceding, this is an astringent plant and much used formerly as a tonic. Gerarde (1597) even says it was called "Philanthropos" because of the great esteem in which it was held. The plant can yield a good yellow, pale or deep in colour. In the fourteenth century it was called Egrimoynne (Chaucer) and used for clearing the eyes, and also with mugwort and vinegar for a "bad back" and "alle woundes."

**Salad Burnet** (*Poterium Sanguisorba*) is a common plant, with globular purplish heads and pinnate leaves, being frequent upon chalky soil. It is very nutritious, so that sheep delight in it, and was formerly cultivated. The generic name *Poterium*, "a goblet," refers to the use of putting it in a tankard; while "salad" of course implies another use. In the fourteenth century it was one of the ingredients for wounds in "save," mentioned by Chaucer. This plant is also very astringent. It was called *P. hortensis*, Garden Burnet, in Gerarde's time.

**Dog Rose** (*Rosa canina*).—As a conserve the hips of this Rose have been long used in pharmacy. They also formed a common dessert dish in the sixteenth century, for Gerarde says they "maketh the most pleasaunte meats and banqueting dishes, and tarts and such like."

**Wild Pear** (*Pyrus communis*).—This is doubtfully indigenous, and when found wild in hedges, &c., it may have been a descendant of trees grown in old Monkish gardens. It is the origin of all cultivated varieties, as several kinds were known to the Romans. The "Warden" was first grown in the grounds of Warden in Edward I.'s reign (thirteenth century), and was borne on the arms of the Cistercian Convent in Bedfordshire, where it was first planted. Similarly the Pears are in the armorial bearings of the City of Worcester, as this fruit was cultivated in that county for perry. The wood of the Pear tree being very hard has been used for the coarser kinds of wood engraving.

**Crab Apple** (*Pyrus Malus*).—Like the Pear, the wild Apple trees are often degenerated forms from cultivation. The fruit is very austere and acid. The juice known as "verjuice" is used for bruises and sprains in the country. It is sometimes



BOTHY DESIGNED FOR CORNER OF KITCHEN GARDEN.

added to cider in Ireland to impart a roughness. All cultivated Apples are derived from this tree, and several varieties were well known to the ancients. The Pippins were so called because they were raised from seed, but grafting has been practised for ages. Professor Bailey says that the original Newtown Pippin when grafted on stocks growing in the different States of North America or in Australia soon assumes the prevailing character of the Apples in those region respectively.

**Wild Service** (*Pyrus torminalis*).—This is a local tree occurring in woods and hedges. It bears small fruits, somewhat spotted and very acid. After a frost, however, it becomes mealy and agreeable, and is occasionally offered for sale.

**Service** (*P. domestica*).—Really a native of South Europe, it was formerly much cultivated in this country, only a rare specimen here and there being now to be found wild, i.e., in the forest of Wyre, near Bewdley. It much resembles the Mountain Ash, but is more tomentose, and the fruit is larger and more pyriform. It appears to have been common in Gerarde's time. He figures it, observing: "It produces browne berries, somewhat long, which are not good to be eaten untill they have lien a while, and untill they be soft like the Medlar; whereunto it is like in taste."

**Mountain Ash or Rowan** (*Pyrus Aucuparia*).—This resembles the last in foliage, but the fruit is different. Gerarde figures it under the names "Quicken tree," "Wilde Ashe," or "Wilde Service tree." The modern name is the trans-

lation of the Latin, *Montana Fraxinus*, of the ancients. The scarlet fruit abounds in malic acid, and a small amount of prussic acid, which might prove harmful to children. Many superstitions are attached to this tree. It was a preservative against witchcraft, a twig being carried about the person in Scotland for this purpose. The berries are largely eaten by thrushes and other birds, but are austere to the taste unless made into a conserve with sugar. GEORGE HENSLow.

## MISCELLANEOUS.

### A WELL-DESIGNED BOTHY.

AS a fitting conclusion to the discussion on the bothy that appeared lately in *THE GARDEN*, we give an illustration of a plan of such a structure by Mr. E. L. Lutyens, such as might be built at one of the angles

of a kitchen garden wall. In the fine old vegetable gardens of 300 years ago such angle buildings were frequent. It is a treatment that gives great dignity, and that redeems the plain quadrangle from the dullness, that is its usual character. Moreover, as many small buildings are of the greatest use about a garden, their erection as a part of the main garden wall saves a great deal of other walling.

The building shown gives excellent accommodation for six men, with a roomy workshop, or for five if room No. 1 were reserved for cases of illness. The partitions between 2 and 3 and between 5 and 6 would be best not carried up to the ceiling but stopped at 7 feet high, thus giving both rooms the advantage of the ventilation given by the chimney of the one room in each pair.

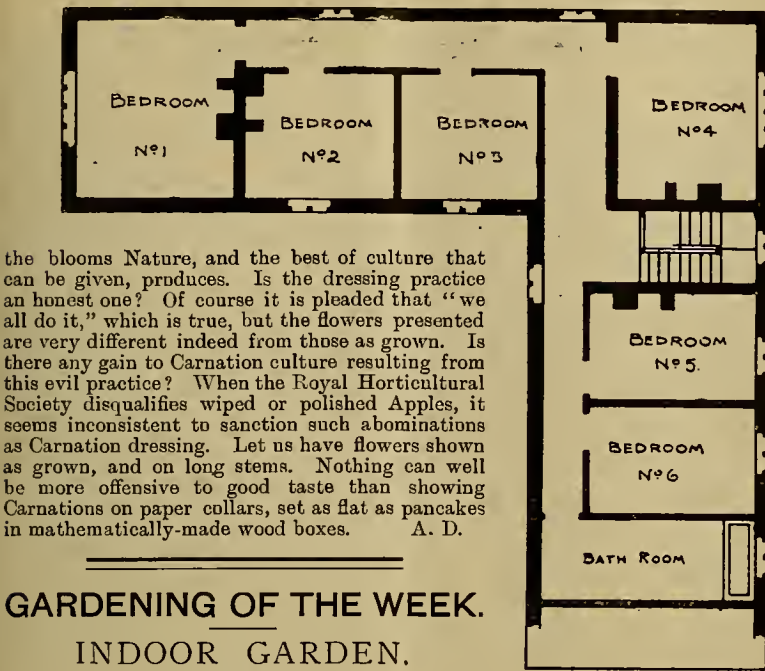
Such a lodging for the young men, with the help of a good steady foreman, would be a benefit whose comfort and good influence could hardly be over-estimated; its erection would not be a matter of great expense, and owners of gardens who have the welfare of their employes at heart will it is hoped set an example.

### EXHIBITING CARNATIONS.

THERE seems to be very little hope that we shall see Carnations shown as grown, judging by what was seen so recently at the Drill Hall. The Carnation exhibitor holds that all his talent in growing flowers, and all that Nature does in the same direction, are insufficient. It has to be so with Roses, Chrysanthemums, Dahlias, and Sweet Peas for instance; but with Carnations the labours of the grower and of Nature when flowers are needed for competition are but half done. It is then found needful to invoke the aid of the dresser, and if that person be skilful and the flowers have in them enough stuff, then more than likely the gain in the competitions is due to his manipulation.

It seems little less than a scandal that under the auspices of the Royal Horticultural Society such things should be, but familiarity with wrong-doing breeds tolerance of the wrong. Yet did a rosarian but serve his blooms as Carnation florists do their flowers he would be expelled from his exhibition with ignominy. One of the results so bitterly complained of to me the other day at the Drill Hall was that ladies and gentlemen go there, see the manipulated blooms, their green sheaths frilled open, their weak petals extracted and their larger ones pulled out wide and flattened, think that such features are the natural ones of well-grown flowers, and are profoundly disappointed when they see





the blooms Nature, and the best of culture that can be given, produces. Is the dressing practice an honest one? Of course it is pleaded that "we all do it," which is true, but the flowers presented are very different indeed from those as grown. Is there any gain to Carnation culture resulting from this evil practice? When the Royal Horticultural Society disqualifies wiped or polished Apples, it seems inconsistent to sanction such abominations as Carnation dressing. Let us have flowers shown as grown, and on long stems. Nothing can well be more offensive to good taste than showing Carnations on paper collars, set as flat as pancakes in mathematically-made wood boxes. A. D.

GARDENING OF THE WEEK.  
INDOOR GARDEN.

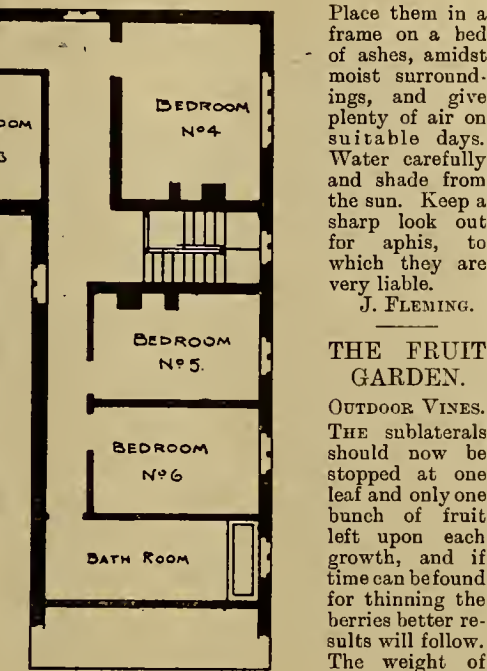
**LACHENALIAS.**  
AS the bulbs are now beginning to grow these should be shaken out. A suitable compost is one composed of three parts loam, one part leaf-mould, with plenty of sand and dried cow manure. Place five or six bulbs in a 5-inch pot, covering them with about half an inch of the soil. Afford good drainage, as these plants require abundance of water when in active growth. Place the plants in a frame and do not give much water for some time after potting. For suspended baskets Lachenalias are invaluable. They also make fine specimens when grown in 10-inch or 12-inch pans.

**FREESIAS.**  
These useful bulbs should be potted in successive batches throughout the autumn. Place five or six bulbs in a 5-inch pot, filled within 2 inches of the rim with a rich light sandy soil; then put in the bulbs and cover them about an inch deep. Place the pots in a darkened cold frame until the shoots are seen, when they should be fully exposed to the light. Freesias and Lachenalias dislike hard forcing.

**ROMAN HYACINTHS.**  
These bulbs should now be potted according to requirements. Place three or four bulbs in a 5-inch pot, just covering them with soil, afterwards plunging them in cocoanut fibre out of doors. Where large quantities are forced they are better grown in boxes and potted just before coming into flower. Early Tulips should be treated somewhat similarly. It is necessary to place Narcissi deeper in the soil than is usual for the Tulip and Hyacinth. Do not press the soil too firmly in potting bulbs.

**MIGNONETTE.**  
To ensure a succession of this another sowing should be made, following the method advised last month. Schizanthus should also be sown now to provide plants through the winter. For indoor decoration in spring intermediate stocks should be sown in 6-inch pots filled with a rich loamy compost, with plenty of wood ashes intermixed to keep the soil porous. Sow four or five seeds in each pot and place in a shaded cold frame. As soon as the seedlings appear thin to three plants in a pot. Plenty of light and air must be given during favourable weather. Water should be carefully applied during winter.

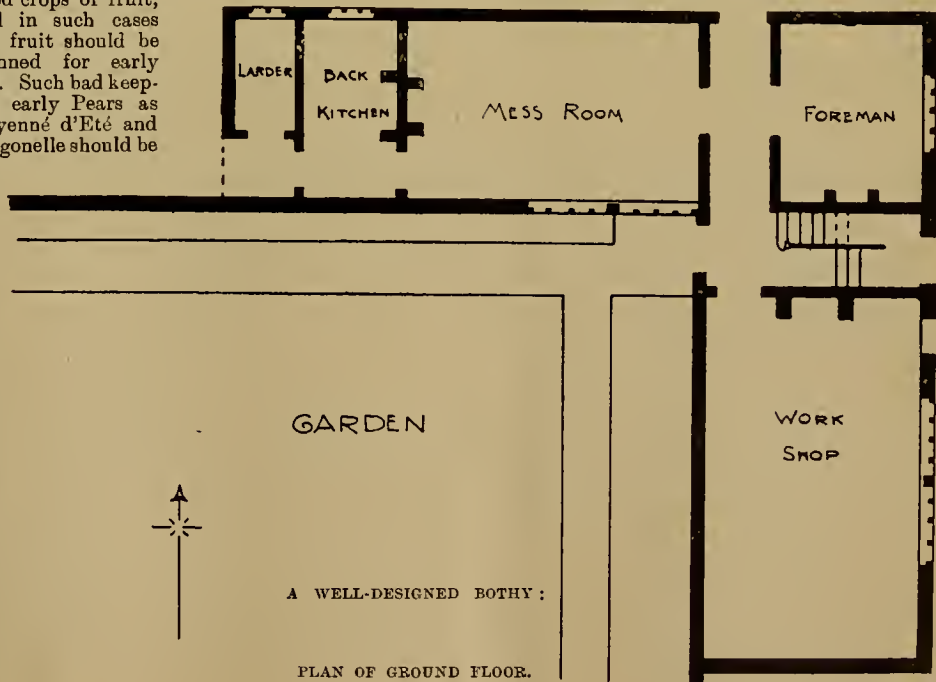
**HERBACEOUS CALCEOLARIAS.**  
These should be examined, and any that are well rooted should be potted on, using a good rich loam with plenty of sand and dried cow manure intermixed. They should be fairly firmly potted.



PLAN OF UPPER STORY.

ing to the strength of the Vines and the means at disposal for nourishing them. Young Vines, or extending rods upon established ones, which have been stopped after making about 3 feet of growth, should have their laterals stopped at one leaf, except the leading ones, which should be secured to the wall or trellis, as the case may be. Attacks of mildew may be stopped by dusting the affected shoots with flowers of sulphur.

**EARLY APPLES AND PEARS.**  
Early dessert Apples, such as Irish Peach, Beauty of Bath, &c., will require to be protected from birds, which are particularly troublesome in dry seasons. In order to have these early varieties in good condition they should be gathered when perfectly ripe and at once used, for their flavour quickly deteriorates. Lady Sudeley is a handsome early sort, but with us a shy bearer. Of early culinary kinds Lord Suffield and Lord Grosvenor are here carrying good crops of fruit, and in such cases the fruit should be thinned for early use. Such bad keeping early Pears as Doyenné d'Été and Jargonelle should be



A WELL-DESIGNED BOTHY :

PLAN OF GROUND FLOOR.

Place them in a frame on a bed of ashes, amidst moist surroundings, and give plenty of air on suitable days. Water carefully and shade from the sun. Keep a sharp look out for aphids, to which they are very liable.

J. FLEMING.

THE FRUIT GARDEN.

**OUTDOOR VINES.**  
The sublaterals should now be stopped at one leaf and only one bunch of fruit left upon each growth, and if time can be found for thinning the berries better results will follow. The weight of the crop, however, must be regulated accord-

used as soon as they are ripe, and by gathering second early varieties, of which Williams' Bon Chrétien and Beurré d'Amanlis are types, at short intervals, a useful succession of ripe fruit may be kept up. These, like early Apples, must be protected.

CHERRIES.

Late Duke and other late varieties must be efficiently protected, that a late supply of fruit may be secured, while earlier kinds, whose crops are gathered, should have their nets removed and be thoroughly cleansed of any black aphids. The foliage should either be submerged in a powerful insecticide or be effectually dusted with tobacco powder.

FIGS.

As the fruits commence to ripen protect them from wasps with the aid of hexagon netting. The cold late spring has been unfavourable to Fig trees, and every inducement must now be given them to properly mature, otherwise the prospect of next year's crop will be marred. Thin out surplus growths, leaving a sufficient number of the strongest and best placed young shoots, which should be closely nailed to the wall.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

THE KITCHEN GARDEN.

CAPSICUMS AND CHILLIES

which are in pots and being grown in cold frames should now be supported with green painted deal sticks, and where these are carrying heavy crops of fruit—as they should be at this date—give a good top-dressing of half-decayed cow manure and fibrous loam, and feed liberally with liquid manure at every alternate watering. Thoroughly syringe the foliage twice daily with tepid water to get rid of any insect pest. The above when well cultivated, as well as being useful for culinary purposes, make splendid decorative plants for autumn and winter use, in many cases rivaling the berried Solanums, especially the smaller fruited varieties.

TOMATOES

planted in the open have made good progress during the past few weeks, and every encouragement should be given to the fruits which are set to swell away rapidly. Remove all surplus growth as fast as it is made, stop the leading shoots, and expose the fruits as much as possible to the sun and air. Give good soakings of manure water during dry weather, and any fruits which are



colouring should be cut and placed under glass to finish. Feed plants under glass which are in full bearing liberally, and guard against keeping too close and humid an atmosphere or in all probability disease will make its appearance. Pot on young plants as they require it, and maintain a sturdy growth. It is not yet too late to make another sowing for winter use, but it should be done at once. Select varieties which set freely. Winter Beauty is a capital kind and of excellent quality.

#### VEGETABLE MARROWS,

like many other things, are exceptionally late this season, except where the plants were raised early and brought on in frames, these having given good returns for some time. An excellent and prolific kind, which I have tried this year for the first time, is Sutton's Perfection, much resembling that splendid variety, Pen-y-hyd, but sets its fruit more freely, and is a fine dark green. It makes a fine exhibition kind, and the quality is all one can wish for. Anyone who has not tried this should make a note of it for another season. Plants which are grown on manure heaps and rich soil will only need plenty of clean water both overhead and at the roots; but those on poor soil, which are being grown for covering unsightly corners, should be liberally fed with farmyard liquid, and watered overhead early in the afternoon.

#### GOURDS AND PUMPKINS.

Fruits on these should now be swelling, and when very large support them in some way. Those on plants on the level should be raised on boxes to ensure a high colour. Keep the plants well supplied with water, both at the roots and overhead; this is best done in the evening as the sun is leaving them.

#### HERBS.

Many kinds of these, such as Mint, Marjoram, Sage, &c., should be cut and properly dried in the sun, after which tie up in small bunches and hang up in an airy shed for winter use. Sweet Basil and Knotted Marjoram should be pulled up and treated likewise.

#### CARROTS.

Sow seed of Short Horn in cold frames, as young roots are generally more highly appreciated than larger ones, and with the aid of glass this sowing will prove very serviceable.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### LILIES FOR ENGLISH GARDENS

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In "Lilies for English Gardens" I was pleased to see that a strong point is made of the advantage an amateur enjoys in learning to distinguish the groups Mr. Baker has divided the Lilies and Daffodils into; and, when mastered, how easy it is to find out if not the name of the variety or species, at least the way of having the correct name settled. Mr. Baker's divisions are so simple and so complete nothing more is left to desire, and I think will last for all times, although some think we have arrived at a point when a new monograph is needed; but I do not think so, and can only say to the advocates for a new monograph that they have not mastered the existing one. A certain writer abuses Haworth's monograph, but Mr. Baker takes a very different view of Haworth's work. Indeed, his only difference was in the names given to the three grand divisions, based on measurement. Mr. Baker has the greatest respect for the work of Haworth.

Mr. Elwes claims that *L. Krameri* is the typical *L. japonicum*, being the first to have this name according to the St. Petersburg Herbarium. The next on the list is *L. Brownii*, and the third *L. odoratum*. *L. Henryi*, Mr. Leichtlin and I agree, is

simply a geographical variety of *L. tigrinum*. I challenged the man who put this Lily into commerce for passing it on as a form of *L. speciosum*, and he replied it was a good selling description.

*Lilium Harrisii*, *Wilsoni*, and *eximium* I never could make out any difference between. The name *Harrisii* we know all about; the name *Wilsoni* must have been a misapprehension. The name *eximium* is of very old standing, and was lost till reintroduced from Japan. *Harrisii* is the best selling name. *L. robustum*, *grandiflorum*, and *Takesima* are three names for the same plant. *L. Takesima* is the oldest name, and *L. robustum* is the best selling name. I challenged the author of "Robustum" name, and he gave me the same answer as he did in the case of *L. Henryi*. *L. Harrisii* found its way to Bermuda as far as I can discover about the same time it did to Cape Town, and that might be from England from the early consignments from Japan. In the early days all Japanese Lilies went to London, and from thence to the Continent and America. In the very early days they went to Holland, to Siebold's garden, and from thence were distributed. The advantage Bermuda enjoys over Japan is that the bulbs mature earliest and are amenable to early forcing—just as Roman Hyacinths from Toulon—and are nearer to the British and American markets. The two centres do not clash. The Japanese thought they could cut out Bermuda, but at a terrible sacrifice, losing millions of bulbs in the effort. From shipping their produce early Bermuda gets first into the market, and so long as they can do so will hold the market for Christmas flowers, and Japan for the Easter market. The finest English *L. candidum* I ever saw were growing close to the wall of Stamford Church.

When in Japan I pointed out the finest form of *L. longiflorum* to cultivate, and was told it could be made to produce fifteen flowers, and as there was a good deal of mixture I recommended the name *L. longiflorum multiflorum*, and as the bulb was distinct from the other seven forms a start was made to select this one, and as they could distinguish it by the bulb at once they commenced the first season with 70,000. From this year's Japanese catalogues I see it is offered at the same price as the mixed lot. There were other forms I recommended that might please amateurs, but the decision was made. We shall throw all away except *L. longiflorum multiflorum* (*eximium*) and *L. longiflorum giganteum* (*grandiflorum*, *robustum*, and *Takesima*). If you keep to *multiflorum* and *giganteum* you will have the two best forms of *L. longiflorum*, and the trade would do well to adopt the names, get rid of all others, and so avoid confusion. I have been thus particular as there is sure to be confusion in names. Wallace in "Thompson's Gardeners' Assistant" adopts *grandiflorum*, my sons adopt *robustum*, and in Japan I see the name is *giganteum*.

*L. Krameri* I found growing in Pine woods at Osaka, the bulbs amongst the Pine needles and the roots in the soil, the moist atmosphere and the shade of the woods being sufficient for the bulb. Professor Thomson when he returned from his voyage told me he found it in valleys much shaded. I next saw it in a temple garden in very robust health; the bed was raised, the soil was poor, and protected from the sun's rays by large overhanging trees on a high bank. The stem was almost black and the green of the leaves showed the most robust health. From the description I got of the place where *L. rubellum* grew on the foothills of Fasi-Yami, and seeing it growing under a deciduous shrub in Yokohama and flowering well I came to the conclusion that the two species needed the same treatment, and were more likely to suffer from humus in the soil than without it, and that perfect drainage such as might be got close up to the stem of deciduous trees and a dry poor stony soil would ensure success. Hence for pot culture I recommended a stony sandy soil with perfect drainage, and I see from THE GARDEN that a Mr. Fitzgerald (I think that is the name) took the hint and was successful. *L. Krameri* at the temple and *L. rubellum* under the bush suggested the mode of culture to attain success and preserve the bulbs.

*L. tigrinum Fortunei* was sent home by Fortune

when in Japan. I think he must have found it in some garden where it was cultivated as a vegetable, as I could not find it amongst the wild plants I saw, and possibly this was a selected one having superior claims. The one I saw wild answered to an old form, and the bulbs to be bought at the auction mart in London I have always found to be *Fortunei*. This variety I found was sold by the Japanese under the name *splendens* till I pointed it out as *Fortunei*, and in a Japanese catalogue I see the name is dropped out, and only *L. tigrinum* is offered in 1902, showing that not being sure they go on the safe side. *L. tigrinum splendens* (*leopoldianum*) was noticed by Mr. Leichtlin amongst a lot of Japanese freshly imported Lilies. The bulb was got and a stock grown, which was handed over to Van Houtte, so I take it we may consider it an accidental variety, as I could not find any knowledge of it in Japan. In "Lilies for English Gardens," China is given as its home, and most likely the old one we have in our gardens may have come from China, as it bears the name *L. t. sinensis*, but our two fine ones, *Fortunei* and *splendens*, are Japanese.

*L. auratum* I did not find growing either in Rice fields or near Rice fields. One field I found on the top of a hill overlooking Yokohama, and a second lot growing on flat ground some distance across the bay. The soil in both cases was loam. *L. longiflorum* is grown about Yokohama in the fields where Rice is grown. The difference in the case of this Lily is that the water is drained off, and in the case of Rice it is drained on to the land. In the early days of its exportation to Europe it was collected from the hills around Yokohama; now there are very few there. I have seen some, but not enough for collectors, who go further afield each year to get stock, which they size and plant. Some are ready the following year, and others not till the third year. *L. auratum* varieties are all selected from the type and not grown apart. *L. auratum platyphyllum* is not a garden variety, but found on an island off the coast of Idrú; in fact none of the *L. auratum*s are garden varieties; in other words, not raised in gardens, but collected as wild plants. In the neighbourhood of Tokio I saw a large quarter of *L. platyphyllum*. In no single instance did I see *L. auratum* cultivated otherwise than in the open without protection of any kind. From my experience of Lilies under trees, except in the case of *L. Krameri* and *L. rubellum*, I failed to get saleable bulbs, and I dare say the Japanese know this. Amongst trees I have found *L. auratum* wild, but the plant was weak, lanky, and the bulb small, so I take it any shade beyond open glades cannot be good for Lilies as a whole. Trees as shelter may be good, but even this was not resorted to in Japan.

*Lilium speciosum* is wild on the mainland of Japan and on an island off the southern coast, but our supply is from cultivated stocks, collecting not being resorted to. *L. Kratzeri* is a white variety of roseum, and its proper name is *L. speciosum roseum album*. *Album novum* is a white variety of *L. punctatum*, and its name is *L. speciosum punctatum album*.

*L. croceum* and *L. bulbiferum* are wild plants. *L. umbellatum* is, I think, between *L. bulbiferum* and the Siberian form of *dauricum* spectabile of Sweet's "English Flower Garden." It is not known where they originated, that is, *umbellatum*. Mr. Krelage said they came from England; in that case they must have been produced by Mr. Groom, of Clapham. Whether he raised all I cannot say, but he did raise some, and at the time there was a bit of a sensation, as he said he had been robbed of some of them. My study led me to put them under the species *L. dauricum*, and I see my sons continue to do so.

*L. dauricum* I found growing wild, deep in wet sand, on the northern island of Japan, when on my way to Yezo. It was a robust plant, and differed from *L. d. spectabile*. This Lily the Japanese I see now offer, I mean the one that grows on their island, not spectabile.

*L. Batemannii* has long been known in Europe under the name *L. venustum*. Some Japanese bulbs of this Lily came into Dr. Wallace's hands, and being more robust the first year (which is



always the case with imported bulbs) than venustum, he named it Batemannia. Mrs. Bateman once asked me why her name was attached to the flower, and I told her it was *L. venustum*. The trade and amateur have nothing to complain of, as it made the bulb sell better under the new name than the old one.

Major Clarke said he had settled the parentage of *L. testaceum* by crossing *L. candidum* and *L. chalcidonicum*. I do not think *L. pomponium* could have given the sturdy growth *L. testaceum* possesses.

My experience is unfavourable to *L. longiflorum* surviving our winters, not that the frost would kill the bulb, but in a mild season it—like *L. candidum*—commences throwing out leaves from the roots soon after flowering, and these get destroyed by our frost and the bulb suffers. The Dutch keep the roots out of the ground until late, and thus stop growth until spring. It is therefore not wise to depend on the bulb beyond the first year if left in the ground, and they are cheap enough to buy annually. I was glad to see in "Lilies for English Gardens" that the smaller-growing Lilies are recommended for rockwork, and at the bottom of the rockwork the bog-loving Lilies would do grandly, also the small growing Daffodils, triandrus, juncifolius, Tenuior, gracilis, and Corbularia tenuifolia, also the large Spanish Corbularia and cyclamineus. On a hot rockwork in full sun Corbularia alba, and the different species from Spain and Eastern France which get burnt up in summer would do. We do not know the home of Corbularia conspicua, so are not sure whether it will take to water. The large Spanish yellow is annually under water, and you may see only the flower floating on the surface.

Cape Town, South Africa. PETER BARR.

SOCIETIES.

COMMONS AND FOOTPATHS PRESERVATION SOCIETY.

THE ENCLOSURE OF STONEHENGE.

AT a meeting of the general committee, held at 25, Victoria Street, Westminster, an important communication, addressed by the Right Hon. G. J. Shaw-Lefevre to the Wiltshire County Council on behalf of the society with reference to the enclosure of Stonehenge, was approved. After pointing out that the recent enquiry held by a committee of three members of the County Council was not a judicial proceeding, Mr. Shaw-Lefevre stated:—  
"The society, with a very large experience of cases affecting the rights of the public to roadways and footways, fortified by the advice of their solicitor and of an eminent King's Counsel of the Western Circuit, have arrived at a conviction that the Judges of the Supreme Court would hold that the public have a right to the use of the roads which lead to the monument, and which have been blocked by the fence as now erected."

"The society therefore cannot but hope that the Wilts County Council, without itself undertaking to decide the question at issue, will be of opinion that this is a case which ought to be submitted to the Courts of Law for a decision."  
"The society would suggest that the County Council of Wilts, if unwilling itself through its own legal advisers to undertake legal proceedings in vindication of the rights of the public, should at least undertake to guarantee the costs of such proceedings on the part of the society to the extent of £600, for which the society will undertake that the case shall be adequately and fully presented in a Court of Law."

The Wiltshire County Council met on Tuesday last, when the communication from the society, together with a report from the roads and bridges committee of the County Council, was considered.

Mr. Edward North Buxton stated that the scheme for the purchase of the extensive open space at Lambourne and Grange Hill, Essex, was proceeding satisfactorily. Up to the present he had received promises amounting to about £5,000 from private contributors, while various local authorities in Essex had agreed to provide £13,000 altogether. Mr. Buxton announced that he had been able to secure the offer of an additional area of twelve acres of land at Grange Hill, adjoining the London County Council Asylum at Claybury, while the trustees of Earl Cowley had promised to dispose of their interests in the two Woodford Bridge Greens, 4½ acres in extent, for £150, provided the whole scheme is carried out. The total area now embraced in the proposed open space will amount to no less than 597½ acres, offered to the public for the sum of £32,000. A hope was expressed by the society that the Corporation of the City of London would eventually make a grant of £10,000 towards the sum of £14,000 still needed to complete the purchase, on the understanding that the 500 acres of common and farm land at Lambourne are placed under the control of the City. It is also hoped that the London County Council will contribute to the purchase of the Grange Hill portion of the scheme, and that further subscriptions will be forthcoming from members of the public in order that the most com-

prehensive proposal for the extension of Metropolitan open spaces which has been before the public for upwards of twenty years may be carried out in its entirety.

BASINGSTOKE.

IN Golding's Park a very good exhibition was held by the Basingstoke Horticultural Society on the 4th inst. Plants were not numerous, but they were good in quality. Special prizes were offered for a group of miscellaneous plants arranged for effect. Mr. G. Best, gardener to F. R. Leyland, Esq., The Vine, Basingstoke, won the premier award by a very narrow margin; so good was the exhibit from Mr. C. Harvey, gardener to W. W. Portal, Esq., Southington. Mr. J. Wasley, gardener to J. B. Taylor, Esq., Sherfield Manor, Basingstoke, won the leading place for nine specimen stove or greenhouse plants with large, healthy Palms, Ixoras, and a handsome mass of *Lilium lancifolium album*. Mr. W. Hunt, gardener to J. Moss, Esq., Fern Hill, Blackwater, had the best Gloxinias and zonal Geraniums. Ferns, Fuchsias, and Coleus were all well shown.

Cut flowers were numerous and good. For twenty-four Roses, Mr. W. Neville, gardener to F. W. Flight, Esq., Twyford, was easily first with an even set of medium-sized fresh blooms; second, Mr. Wasley. For twelve ditto, Mr. Neville was first, closely followed by Mr. Hunt. Carnations were well shown by Mr. Neville, who secured the leading award with a dozen large, shapely blossoms.

Much encouragement is given here to hardy herbaceous cut flowers. In addition to the prizes offered by the society, Messrs. B. Ladhams, Limited, Shirley, Southampton, offer prizes for a collection to occupy a certain space. The result was a fine display. In the latter class, and for twelve varieties, Mr. Hunt won easily, staging huge bunches of good things. Mr. Wasley was second in one class, and Mr. J. Tamplin, gardener to W. R. Mitchell, Esq., occupied a similar position in the other class.

Sweet Peas were a feature. For six bunches, distinct, eleven competed, the best coming from Mr. S. Clifton, Winchester; Mr. Tamplin was a good second. A remarkably fine lot of zonal Geraniums in twelve trusses was staged by Mr. Hunt, who secured the leading award quite easily.

Several classes were set apart for ladies exhibits. The tent in which they were arranged was made quite bright and interesting owing to the number and quality of the exhibits. For the best decorated table for six persons there were four entries. Miss Wadmore, Brook House, Basingstoke, secured the leading award with an arrangement possessing brightness and harmony of colouring. Miss Gosling, Basingstoke, was second.

Fruit was not numerous, but of good quality, Mr. W. Hunt winning for a collection of six varieties; Mr. Bowerman, gardener to Lord Bolton, Hackwood Park, Basingstoke, second. Mr. Hunt won the first place with Muscat Hamburg in the class for Muscats; Mr. Tamplin first for Black Hamburg; and for two bunches of any other black Mr. Wasley had Madresfield Court in superb condition.

Vegetables were numerous and good. Mr. Kneller, gardener to Sir Wyndham Portal, Malshauger Park, Basingstoke, won Messrs. Sutton's prize for six varieties with superb Onions, Potatoes, Tomatoes, and Peas; second, Mr. Bowerman. The latter won the society's prize for eight kinds, while Mr. Best did likewise in Messrs. Webb's class.

The trade was well represented by non-competitive exhibits, which added to the attractions of the show. Messrs. B. Ladhams, Limited, Shirley, Southampton, had fine bunches of meritorious hardy cut flowers, such as the various forms of Gaillardia, Coreopsis lanceolata Eldorado, Eryngiums, &c.; Messrs. Wadmore had flowers, plants, and vegetables; and Mr. W. Breadmore, Winchester, Sweet Peas in quantity.

MIDLAND CARNATION AND PICOTEE SOCIETY.

THE exhibition of this society was held in the Edgbaston (Birmingham) Botanic Gardens on the 7th and 8th inst. The dates had been wisely altered from July 30 and 31, owing to the lateness of the season. Many of the classes were very keenly contested, and excellent blooms were shown. Unfortunately, the weather was bad, rain falling heavily the first day. At the luncheon given to the judges and others testimony was paid to the great help the society had received from Mr. Robert Sydenham during the years he had acted as honorary secretary. Mr. Sydenham remarked that much of the work had been done by his secretary, Mr. Herbert Smith. Mr. W. H. Parton, who now takes up the secretaryship, said he hoped all the good things said of Mr. Sydenham might some day be also worthily said of him.

SINGLE BLOOMS.

Twelve self Carnations: First, Mr. S. Gibbs, gardener to Robert Sydenham, Esq., Birmingham, with splendid blooms of Sapho, Queen of Scots, Exile, The Naiad, Boreas, &c.; second, Mr. H. G. Rudd, gardener to R. C. Cartwright, Esq., King's Norton, with flowers but little inferior; third, Mr. C. F. Thurstan, Penn Fields, Wolverhampton. There were numerous other entries.

Six self Carnations: First, Mr. A. W. Jones, Stechford, showing well Hildegard, Britannia, Lady Hermione, Much the Miller, &c.; second, the Rev. C. A. Gottwaltz, Hadsor, Droitwich; third, Mr. W. H. Twist, Yardley.

Twelve yellow ground Picotees: First, Messrs. Thomson and Co., the Nurseries, Sparkhill, with excellent blooms, Lady St. Oswald and Lady Bristol being the best; second, Mr. R. G. Rudd, with fairly good flowers; third, Messrs. Artindale and Son, Rammoor, Sheffield.

Six yellow ground Picotees: First, Mr. A. W. Jones, Stechford, who showed moderately well; second, Messrs. Blackmore and Langdon; third, Mr. C. F. Thurstan.

Twelve fancy Carnations: First, Mr. R. G. Rudd, with some excellent blooms, notably of Voltaire, Argosy, and Hidalgo; second, Messrs. Thomson and Co., Sparkhill, with very pretty blooms; third, Mr. W. H. Parton, King's Heath, with good flowers also. There were numerous other entries in this class, which was, perhaps, the best in the show.

Six fancy Carnations: First, Mr. A. W. Jones, Stechford, with excellent flowers of Eldorado, Aglaia, Argosy, &c.; second, Mr. J. F. Smith, Sparkhill, with rather smaller blooms; third, Mr. C. F. Thurstan, Penn Fields, Wolverhampton, with good blooms.

Twelve white ground Picotees: First, Messrs. Thomson and Co., Sparkhill, who showed well Amy Robsart, Brunette, Mrs. Sharp, and others; Mr. A. R. Brown, Handsworth, was a good second; third, Messrs. W. Pemberton and Son, Walsall.

Six white ground Picotees: First, Mr. F. W. Goodfellow, Walsall, with good blooms, notably of Lavinia and Brunette; second, Mr. J. J. Keen, Southampton, with very good Amy Robsart, Mrs. Payne, and Little Phil; third, Mr. D. Walker, Kay Park, Kilmarnock.

Twelve flake or bizarre Carnations: First, Messrs. Thomson and Co., Sparkhill, showing splendid flowers; second, Messrs. W. Pemberton; third, Mr. S. Gibbs. This class brought out some excellent blooms.

Six flake or bizarre Carnations: First, Mr. D. Walker, Kilmarnock; second, Mr. F. W. Goodfellow, Walsall; third, Mr. J. J. Keen, Southampton.

AXATEUR CLASSES.

Six white ground Carnations or Picotees: First, Mr. C. J. White, Walsall, with pretty flowers; second, Mr. J. Williams, Smethwick, who also showed well; third, Mr. J. W. Smart, Moseley.

Six selfs, fancies, or yellow grounds: Mr. J. Williams, Smethwick, was first with excellent blooms of Lady Walsh, Hidalgo, Enchantress, &c.; second, Mr. W. Moore Binns, Mayfield, Worcester; third, Mr. C. J. White.

Six selfs, flowers undressed: First, Mr. T. Newton, King's Heath; second, Mr. J. Williams; third, Mr. W. Moore Binns.

BORDER FLOWERS.

Twelve selfs: First, Mr. R. G. Rudd, who had good blooms, but some dissatisfaction was expressed because the blooms were apparently dressed; second, Mr. W. H. Parton, King's Heath; third, Mr. S. Gibbs. There were four remaining prizes.

Six selfs, dissimilar: First, Mr. A. Chatwin, Edgbaston, who showed well; second, Mr. W. H. Twist, Yardley; third, Mr. E. Sergensson, Formby, Liverpool, all exhibiting good blooms.

Twelve fancies or yellow grounds: First, Messrs. Artindale and Son, Rammoor, Sheffield, with a good exhibit; second, Mr. R. G. Rudd; third, Mr. A. W. Jones, Stechford, both showing well.

Six fancies or yellow grounds: First, Mr. A. Chatwin, Edgbaston, with very good flowers; Mr. W. H. Twist, Yardley, a good second; third, Mr. C. F. Thurstan, Penn Fields, Wolverhampton.

BLOOMS STAGED IN THREES.

Twelve distinct selfs, yellow ground Picotees or fancies: First, Mr. W. H. Parton, King's Norton, who showed fine flowers, especially of Voltaire, Hesperia, and Golden Eagle; second, Mr. R. G. Rudd, King's Norton, with good blooms; third, Messrs. Artindale and Son. There were other good exhibits in this class.

Six self yellow ground Picotees or fancies: First, Mr. A. W. Jones, Stechford, who had beautiful blooms of Guinevere, Eldorado, Voltaire, and May Queen; second, Messrs. Blackmore and Langdon, Tiverton Nursery, Bath, who had very good Richness, Master F. Wall, &c.; third, Mr. A. Chatwin, Edgbaston.

One vase of white, blush, or pale pink self: First, Mr. J. F. Smith, Sparkhill, with the variety Mr. Eric Hambro; second, Mr. W. H. Twist, Yardley.

One vase of rose, salmon, or scarlet: First, Messrs. Artindale and Son, Sheffield, with the variety Mrs. A. Gilbert; second, Mr. A. R. Brown, Handsworth; third, Mr. Herbert Smith, King's Heath.

One vase of yellow, buff, or terra-cotta: First, Messrs. Artindale and Son, with the variety Pandelli Ralli; second, Mr. W. B. Latham; third, Messrs. Thomson and Co., Sparkhill.

One vase of any dark self Carnation: First, Mr. A. R. Brown, Handsworth, who showed the variety Comet; second, Messrs. Thomson and Co.; third, Mr. W. H. Twist, Yardley.

One vase of yellow ground Picotees: First, Messrs. Thomson and Co., with Mohican; second, Mr. A. R. Brown; third, Messrs. Artindale and Son.

One vase of yellow ground fancy Carnations: First, Mr. R. G. Rudd, with Eldorado; second, Mr. A. R. Brown; third, Messrs. Blackmore and Langdon, Bath.

SINGLE BLOOMS.—CARNATIONS.

Scarlet bizzarres: First, Messrs. Pemberton and Sons; second, Messrs. Thomson and Co.; third, Mr. H. Boys.

Crimson bizzarres: First, Messrs. Thomson and Co.; second and third, Mr. D. Walker.

Pink and purple bizzarres: First, Messrs. Thomson and Co.; second and third, Messrs. Pemberton and Son.

Scarlet flakes: First, Mr. C. J. White; second, Mr. D. Walker; third, Messrs. Thomson and Co.

Rose flakes: First, Messrs. Thomson and Co.; second, Mr. G. F. Goodfellow; third, Messrs. Pemberton and Son.

Purple flakes: First and second, Messrs. Pemberton and Son; third, Messrs. Thomson and Co.

Picotees and fancies.—The principal prize-winners in the classes for single blooms of these were Messrs. C. F. Thurstan, C. F. Goodfellow, Thomson and Co., W. H. Twist, Pemberton and Son, and R. G. Rudd.

SINGLE BLOOMS.—SELFS.

Messrs. W. H. Parton, A. W. Jones, Blackmore and Langdon, A. R. Brown, W. M. Binns, J. H. D. May, Thomson and Co., G. Chaudy, and S. Gibbs were the chief prize-winners in these classes.

SWEET PEAS.

Twelve distinct varieties, prizes offered by Mr. Robert Sydenham, Tenby Street, Birmingham.—First prize, Mr.



F. J. Clark, Wistow Gardens, Leicester, with a beautiful display of Coccinea, Lady Grisell Hamilton, Navy Blue, Miss Willmott, &c.; Mr. V. B. Johnstone, Tetterhall, Staffordshire, with good flowers and distinct varieties, was second; third, the Rev. F. Beincombe, Penylan Parsonage, Rhubon. Floral arrangement of Sweet Peas.—First, Mrs. Simpson, Shipston-on-Stour, with good sprays loosely arranged; second, Mr. Herbert Hookham, Selby Hill, who used rose and white flowers; third, Mrs. A. L. Muston, Selby Park, with purple varieties.

Shower Bonquet.—Messrs. Artindale were first with an arrangement of Malmalson Carnations; Messrs. Pope and Sons, King's Norton, second, with a prettier display; Mr. W. B. Latham, third, with a bouquet composed of dark red Carnations and Asparagus.

Spray of Carnations or Picotees.—First, Mr. A. M. Wilson, Spilsby, with a yellow variety; second, Mr. S. Gibbs, who used rose-coloured blooms; third, Mr. W. B. Latham.

#### NON-COMPETITIVE EXHIBITS.

Mr. S. Mortimer, Rowlledge, Farnham, Surrey, displayed a beautiful lot of Cactus and double Dahlias so early in the season. The blooms, especially several new seedlings, were of most attractive colours. John Burn, crimson; and Mrs. Horace J. Wright, cream, with vermilion centre, were remarkably good.

Messrs. Dicksons, Limited, Chester, showed hardy flowers in considerable variety. Notably fine were the Scabious, Gladioli, Heleniums, Carnations, and Phloxes.

Mr. J. H. White, Worcester, showed a very attractive display of hardy flowers, in which we remarked several Eryngiums, Veratrum nigrum, Tigridias, about twenty-five varieties of Phlox, the white Agapanthus, Cactus Dahlias, and Water Lilies.

Messrs. Simpson and Sons, Birmingham, exhibited a collection of Sweet Peas in many beautiful sorts.

Tuberous Begonias were splendidly shown by Messrs. B. R. Davis and Sons, Yeovil. The blooms were remarkable for their fine colouring, good form, and immense size.

Messrs. Phillips and Taylor, Bracknell, Berks, showed Nymphaeas, Carnations, &c.

Messrs. Hewitt and Co., Solihull and Birmingham, exhibited an excellent display of hardy flowers in considerable variety, in which were especially noticed Liliums, Coreopsis, Phlox, Statice, Enothera, and Canterbury Bells.

Mr. William Sydenham, Tamworth, showed cut Roses nicely arranged in glasses and an excellent lot of Viola blooms in many rich and beautiful shades of colour.

Mr. Amos Perry, Winchmore Hill, London, N., exhibited a very attractive group of hardy flowers, the chief features of which consisted of a beautiful selection of Nymphaeas, no less than thirty sorts of these being shown. A new one worth noting is N. Laydekeri rosea prolifera, said to be the most free flowering of all. Other good things shown were Gladioli, Achillea graeca, Gaillardias, Tamarix aestivalis hispida, &c.

#### MEDALS.

Messrs. Thomson and Co., Birmingham, were awarded the champion medal, as they obtained the largest number of points in the large and single bloom classes.

Mr. David Walker, Kilmarnock, won a similar medal in the small and single bloom classes.

The silver medal offered to the most successful exhibitor in the single bloom classes was also won by Messrs. Thomson and Co.

#### AWARDS.

First-class certificates were given to:

Meteor, rose flake, raised and exhibited by Messrs. Thomson and Co., Birmingham.

Miss F. Sims, a very dark crimson self, raised and exhibited by Messrs. Thomson and Co.

John Pope, a bright rose self, raised and exhibited by Rev. C. A. Gottwaltz, of Hadzor, near Droitwich.

#### PREMIER BLOOMS.

Dressed: Flake, Mrs. May, exhibited by Mr. David Walker; bizarre, R. Houlgrave, from Messrs. Pemberton and Son; heavy edge white ground Picotee, Brunette, from Mr. C. F. Thurstan; light edge ditto, Pride of Leyton, from Messrs. Thomson and Co.; heavy edge yellow ground Picotee, Gertrude, from Messrs. Thomson and Co.; light edge ditto, Child Harold, from Messrs. Thomson and Co.; self, Miss F. Sims, from Messrs. Thomson and Co.; fancy, Eldorado, from Mr. A. W. Jones.

Undressed: Self, Hildegarde, from Mr. S. Gibbs; fancy, Voltaire, from Mr. R. G. Rudd; yellow ground Picotee, Child Harold, from Messrs. Artindale and Son.

## ANSWERS

### TO CORRESPONDENTS.

#### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—J. F. A.—1, Campanula garganica; 2, C. rhomboidalis; 3, C. glomerata var. alba; 4, Enothera sp.; 5, Sedum Alzoon variegatum; 6, Sedum album; 7, Alyssum incanum; 8, Veronica spicata; 9, Specimen insufficient for determination; 10, Asplenium Filix femina var.; 11, Asplenium Filix femina var.; 12, Sedum opposi-

folium.—W. A. Watts.—Wild Chicory (Cichorium Intybus).—Rosehill.—The variety with the ruby-coloured foliage is known as Rosa ferruginea or rubrifolia, and the coral-coloured Tea Rose is Corallina.—W. D. F.—Fagus sylvatica var. heterophylla (the Cut-leaved Beech). Polygonum cuspidatum.—Arthur Swift.—The leaves you sent were, unfortunately, quite black and unrecognisable. In all cases good flowering examples are necessary for accurate naming.—C. Prentis.—The Calliopsis (Coreopsis) is probably C. bicolor nigra or C. b. purpurea. There are several of these dark forms in general cultivation, and all come true from seeds, or nearly so.

**Oak tree decaying** (A. L. S.).—The Oak tree should be cut back in the winter when devoid of foliage, as if done now it would result in a considerable loss of sap. The cut should be sufficiently sloping to prevent any water settling thereon and thus causing decay. A coating of Stockholm tar will serve to protect from the weather and assist the wound to heal.

**Buds of Romneya Coulteri withering before opening** (J. A.).—This is a very common occurrence in Romneya Coulteri. It is usually the result of a check of some description, insufficient water, a very cold spell after hot weather, insect attacks, &c. From the leaves the plant appears to be perfectly healthy, and in this case the injury is probably due to the cold. You might give the plant a surface dressing of well rotted manure and decayed leaves.

**Exhibiting hardy flowers** (HAWICK AMATEUR).—Your question is a little vague, because whilst you use the term "hardy plants," your query as to vases leads to the inference that you mean hardy flowers in bunches set up in vases. We cannot tell you where you can obtain such vases as you need for the purpose, but you should enquire of some local dealer in glass or earthenware. Failing those, try some seedsman or dealer in horticultural sundries. On a table 5 feet by 3 feet, from twenty-five to thirty bunches of flowers, not too large, and not crowded, but each one well displayed, should suffice; the taller behind, the dwarfier in front, if the table is placed so as to have one front only. No foliage or dressing should be used other than the foliage of each variety. Of course you would show purely hardy things, such as will stand an ordinary winter out of doors. You might, no doubt, lay some foliage of a hardy kind about on the table between the vases.

**July-sown Carrots** (OXFORD).—It is a fact that Carrots raised from a sowing made now rarely if ever suffer from the Carrot fly or maggot. That is a special reason why a summer sowing should be made. Where ground has been well moved in digging early Potatoes it is only needful to level it, then to draw shallow drills 10 inches apart, and sow the seed fairly thin, as it is not held needful to thin out these winter Carrots later. Growth soon follows, and it continues up to the end of December at least. The advantage of having even but a small breadth of perhaps half a rod in area of these young Carrots to pull from during the winter is that they are so tender and pleasant to eat, far more so indeed than are the large Carrots which have been lifted and stored for the winter. Should very hard frosts ensue a portion of the bed may be covered up for the time with litter or ferns. The Carrots should be nulled clean in the rows. The best varieties to sow now are the early winter or scarlet Champion.

**Rhododendron questions** (H. D. R.).—1, "Trees and Shrubs for British Gardens," a book which will soon be published; 2, October; 3, Anthony Waterer; 4, Leave them alone and they will bloom in time; 5, a, b, c, d, impossible to answer these exactly without being in a nursery at blooming time. Miss Jekyll's own knowledge we think was about exhausted in what was written in "Wood and Garden," page 64 and onward. (a) Album elegans or Album grandiflorum, neither exactly white but lilac-white, extremely harmonious with potted; (b) Michael Waterer, John Waterer (crimsons), Kate Waterer, James Bateman (rose), Mme. Carvalho, Sappho (whites); (c) Atroraginum, Alexander Adie (scarlet or blood colour), Baron Schroder (plum colour)—the only other good deep coloured we know is uigrescens, which is too early—perhaps Old Port would do for the second, and the only true pink we know is Bianchi, only grown by Maurice Young, Milford Nurseries, Godalming; (d) everestianum (light purple). No other purples we know go so well with this as selections made at blooming time of lighter and darker shades in the nursery. 6, Any of these colourings grouped as described would do equally badly against a brick wall, where whites only should be used.

**Peaches failing** (J. R. K.).—The cause of the failure in Dr. Hogg was evidently the early attack by aphides. Had this been prevented by timely attention in destroying the aphides, Dr. Hogg would have succeeded as well as Noblesse, as the variety is a good grower. Aphides often remain in embryo on the bark of the trees during winter, getting active at the same time as the growth, which they insidiously attack before their presence is suspected. In a case like this the tree should be washed over carefully a few weeks before growth begins in spring, with soft soap and water in the proportion of a wine-glassful to a gallon of water, when the larvae will be destroyed. At pruning time (the end of January) we should cut those affected shoots back to half their length, when we have no doubt that as many growths will spring from the base of the shoot as will be wanted for furnishing terminal and side shoots the following season, nothing can be done now. In the case of the Noblesse cut back as you suggest all lateral growth from the current year's shoots.

**Shading greenhouse** (CELIA).—Various causes operate to render the shading of greenhouses necessary in hot weather, the primary one being the excessive heat generated in glass houses, let ever so much ventilation be given, when the sun plays upon the glass roof in full force. Then the inside temperature is often forced up many degrees above normal temperature, making it far too hot for the plants, and causing the soil in the pots rapidly to dry. It is at such times that shading of some description is useful as tempering the heat to suit the plants' requirements. Best of all is a thin roller blind of canvas or tiffany, because

that can be lowered or raised as may be needed. The best fixed shading is made of new milk and common washing blue, just to give the milk a pleasing tint. That should be painted on the glass, but it has to remain in all sorts of weather until the winter frost peels it off. Shading should in all cases be very thin, and certainly, if possible, used only in strong sunshine.

**Araucaria excelsa** (OSMUNDA).—This is a native of Norfolk Island off the coast of Australia, and like all plants from that region it needs the protection of a greenhouse, though it may be stood out of doors during the summer months. Care must be taken to remove it under glass before the autumn frosts appear, and it should not be placed outside in the spring till ordinary bedding plants can be safely trusted in the open ground. We fear that your Maple is past recovery; the reason of this we cannot say, as the removal to a slightly cooler structure ought not to have affected it. Old stunted plants are, however, sometimes liable to go off without any apparent cause. As your plant is not quite dead you might keep it a little longer to see if it recovers, but, as stated above, we fear there is not much hope.

**Fairy Rings on lawns** (ENQUIRER).—Occasional dressings of a mixture of basic slag, sulphate of potash, and nitrate of soda applied to those so-called fairy rings on a lawn usually helps to their removal. Failing these particular manures, which can be obtained from any merchant, use a good guano mixture, applying at once 3lb. per rod, and again a month later. Top-dress the whole of the ring area. These rings are caused by a fungus, the roots or mycelium of which spread outwards into fresh soil yearly, and they render it poor. But the mycelium of the previous year dying or decaying becomes for the time a manure on which the grass feeds, and causes the strong green growth called Fairy Rings. The application of manure dressings as advised causes the soil to become alike rich, and good results follow. Probably the reason why Clover seed sown on a lawn comes up only in patches is because the seed fails to find soil enough properly to cover it. Where seed is so sown the lawn should have a liberal soil dressing.

**Rose American Beauty** (H. L. BROWN).—The correct name of the variety known in the United States under the above name is Mme. Ferdinand Jamain. It was raised by a French grower named Ledechaux, and introduced in 1875. The Americans claimed that the Rose originated in the garden of the Hon. George Baccroft at Baltimore, but it has long been recognised that the two Roses are identical. Although without a doubt the variety is of French origin, our American friends should be given the credit for the manner in which they have developed it. The astounding growth it will make in that country when grown upon its own roots and planted on benches under glass is simply marvellous, but we doubt whether the variety could be so grown here owing to our almost sunless winter season compared to that on the other side of the Atlantic. That Mme. Ferdinand Jamain is a Hybrid Tea seems perfectly evident from its very perpetual flowering habit and also judging from the wood and foliage. The deep rose colour is a shade not much admired in England, but under forced conditions and in midwinter even Roses of this colour appear beautiful, and there is this to be said in its favour, the Rose is deliciously fragrant.

**Moles in herbaceous border** (WORRIED).—It is very difficult to know what to advise in this case, as the soil being so light the moles can take a fresh turn at the least obstruction or the approach of danger. Cannot you trace them from the superficial runs down to the more permanent runs on the sand or gravel subsoil? It is quite useless we know by experience trying to get the upper hand by dealing only with the surface runs, but if by diligent search you find access to one of the main arteries or tunnels you may either trap them there or endeavour to oust them by burning sulphur in the low runs, and nothing is more penetrating than this. Have you no knowledge of their headquarters, or is there no hedge near by in whose bottom these things make their home? We have been most successful with the trap—which we always handle with gloved hands—by fixing upon a spot where of necessity the moles have to cross a path or roadway. In such case the runs are deep but not numerous, and many may be taken at a single point. Failing this we would certainly try to force the fumes of sulphur into their runs, and if necessary from two or more points simultaneously.

#### QUESTION.

**"Peter's Wreath."**—Can anyone tell me the botanical name of the shrub called in America "Peter's Wreath"?—M. P. FORSTER.

#### CORONATION AND THE CHILDREN.

THOUSANDS of poor East London children were not able to participate in the Coronation celebration. We are proposing therefore to give a Coronation Day in the country to as many as possible. For every £50 we can take out 1,000 poor children at the rate of one shilling per head. Will your readers kindly help us to brighten these young lives by giving them a day of gladness which will linger in their memory in years to come as the Coronation celebration of their Gracious King? Every gift, great or small, will be promptly acknowledged on behalf of our East London committee by (REV.) JOHN W. ATKINSON.

Claremont, Cawley Road, London, E.

**A Visit to Messrs. Cannell and Sons.**—Sir J. Liege Hulett, Speaker of the Legislative Assembly of Natal, and Lady Hulett paid a lengthy visit to Messrs. J. L. Cannell and Sons' Swanley Nursery last Monday, and were much interested with what they saw. They propose having a day's visit to the firm's Eynsford Nursery later on, and making an exhaustive examination before leaving for South Africa.



# THE GARDEN

No. 1605.—Vol. LXII.]

[AUGUST 23, 1902

## MUSINGS ON PLANT NAMES.

WE print an article from Mr. Arthur Goodwin upon an interesting and important subject:

"Readers of THE GARDEN were no doubt amused at the enquiry made in Parliament recently as to whether the First Commissioner of Works would issue instructions that the practice of labelling flowers, shrubs, and trees in Latin in Kew Gardens shall be discontinued and English substituted. Perhaps no more foolish question could be conceived, yet at the time I noticed that a certain section of the daily Press, with that ineptitude born of ignorance, pronounced in favour of the suggestion, while a provincial journal, slightly more irresponsible than the rest, denounced what it described as 'botanical pedantry.' Most of us can picture to ourselves the able director of our lovely national garden smiling to himself at such narrow-minded pettifogging cackle. Nevertheless, Sir W. T. Thiselton-Dyer has to a certain extent responded to popular clamour, as may be seen by referring to the new 'Hand List of Herbaceous Plants.' This recently-published list consists of 1,235 pages, and is more than double the size of the old one, part of this increase in size being accounted for by the inclusion of English names 'where they exist.' This last proviso is of course important. One can hardly expect the Kew authorities to take upon themselves the responsibility of inventing popular names for plants of recent introduction. For my own part I fail to see the use of English names in cases where two plants, belonging not only to a different order but to a distinct species, have identically the same name applied to them.

"As an instance, in the 'Kew Hand List' *Astilbe rivularis* and *Spiræa Aruncus* are both termed 'Goat's Beard,' yet as garden plants they are quite distinct, although both enjoy the same position, while from a botanical point of view the *Astilbe* belongs to the natural order Saxifragaceæ and the *Spiræa* to the Rosaceæ. Canon Ellacombe, in his charming book, entitled 'In My Vicarage Garden and Elsewhere,' devotes a chapter to 'Plant Names,' which is most helpful and full of interest. I cannot do better than quote the following passage: 'During the last few years attempts have been made largely to increase the number of English names for exotic plants, and even to insist that none but English names should be used by English botanists. I have no wish to enter into the discussion of this vexed question; I will only say that I think the attempt is both unwise and mischievous, and if adopted by other nations would lead to a woeful confusion, and, instead of knowing our plants by the one accepted scientific name, which would be good in every civilised nation,

we should have to learn the different names adopted in each separate country."

Turning to the subject of hardy plant nomenclature, there still exist many puzzles which, unaided, we amateurs can hardly expect to solve. True, we owe considerable thanks to THE GARDEN for giving us a helping hand by means of such instructive articles as M. Correvon's, but there are still many families of hardy plants which would stand the searchlight of investigation thrown upon them. Take for instance what I must call for want of a better term the Sunflower family. By this I mean *Helianthus*, *Heliopsis*, *Helianthella*, and *Wyethia*. Even in many of our best gardens these Sunflowers appear to be misunderstood, and this can hardly be wondered at considering the appalling tangle of synonyms which seems to overshadow them. Last autumn I had the pleasure of seeing a large collection of these plants which had been gathered from many sources—but in this case a considerable number of them proved to be identical, although their labels would have led one to believe otherwise. In fact, Sunflower names seem to have been coined in a most reckless manner, and the "Kew Hand List" deals with twenty-two synonyms under the heading of *Helianthus*! Here, then, Mr. Editor, is a suggestion for a subject which might well be included in THE GARDEN, and one which I venture to say would, if adopted, prove of interest and value to your large circle of readers.

I feel bound to say that I appreciate a visit to a garden where plants and trees are correctly yet inconspicuously named, although I am well aware that in many good gardens labels are strictly vetoed. I cannot close without relating a rather amusing story which lately reached me anent this subject. A certain proprietor residing in a well-known Midland town, where horticulture has many devotees, purchased a charming and picturesque estate in an adjacent suburb. One of the chief attractions of the place was a fine collection of well-grown trees and shrubs, and it occurred to their owner to have them all labelled after true botanic garden fashion for the edification of his friends and frail humanity generally. Accordingly, his own knowledge of botany being *nil*, an expert was called in and a list drawn up of the labels which would be required. Their preparation was entrusted to a house painter, who at least did his best. On a deep black background the names stood out in white of such prodigious size that the most astute advertising contractor would have been satisfied. The day arrived which saw the work completed, and the labels were duly affixed to their appointed positions. One tree only escaped, this being a magnificent Lime tree. However, it was soon espied by the lord of the manor, who thereupon himself hunted up its botanical name in a dictionary, and forwarded it to the decorator to be inscribed like the rest. This was accomplished and the label placed in position. Strange to

say no one seems to have noticed anything wrong with it until one day a botanist of some repute came to see the place and was shown round by its owner. Judge of the visitor's astonishment when, asked to admire a stately Lime tree, he read upon its trunk the following inscription: "*Citrus communis*."

## THE WALL GARDEN IN AUGUST.

It is only during recent years that wall gardening (i.e., the covering of walls with ornamental plants) has received proper attention. Wall gardens as well as rock gardens generally look brightest in spring or early summer, but the plants given in the following notes are now in flower at Exeter, so that the wall garden in August need not be much less interesting than in the spring if suitable plants are used.

Where the top of a retaining wall can be covered with soil to the depth of 9 inches or more a surprising number of good showy plants can be grown there with excellent effect. *Linaria dalmatica*, which is still in bloom, is a suitable plant for this purpose, its yellow and orange flowers stand out boldly, and the plant will often shed its seeds and spring up in other places. Equally suitable are many *Dianthus*; of those still in bloom may be named *Dianthus rupestris nanus*, with white deeply fringed flowers; *D. versicolor*, deep crimson flowers, with darker centre; and *D. integer*, with white fringed flowers. There are many other suitable kinds, but most of these would now be out of bloom. Another most suitable plant is *Corydalis ochroleuca*, which has creamy white flowers, which now are fully open, while its relative, the yellow *Fumitory* (*Corydalis lutea*), has passed out of bloom more than a month ago. Attractive, too, is *Erigeron mueronatus*, or, as it is sometimes called, *Vittadenia triloba*, whose Daisy-like flowers are produced in great profusion, and which, if planted on the top of a wall, will quickly spread downwards, covering the wall with a veil of pretty flowers. A fine contrast is formed with this plant and Iceland Poppies in orange or yellow colours, which as a rule will last till August, and sometimes self-sown plants will flower much later. Other good plants which like a sunny position are the bright yellow *Achillea tomentosa* and the purple *Statice elata* and *Pyrethrum Zaradskyi*, which has large flowers of a pale pink colour and grows about 10 inches high. *Arenaria montana* and other species are now out of bloom, but *Arenaria grandiflora* with its white flowers is still quite fresh.

### PLANTS SUITABLE FOR CREVICES OF A WALL.

An excellent plant for the above-named purpose is *Linaria anticaria*; its flowers are white, tipped with blackish maroon, and very striking. It grows about 10 inches to 12 inches high, and is supposed to be only biennial, but I have known plants to occupy the same spot for several years in succession; it easily sows itself. Other suitable *Linarias* which do not object to the narrowest chink or fissure are the well-known *Linaria cymbalaria* and the somewhat larger *L. pallida*. Thymes are mostly out of bloom, but the purplish blue *Thymus lanceolatus* and the somewhat paler *T. micans* are still at their best. Here and there,



too, *Thymus Serpyllum* has not quite passed out of bloom. Very suitable as wall plants also are the various kinds of *Mesembryanthemums*. In Cornwall *Mesembryanthemum edule* covers walls and banks rapidly. Unfortunately, it is not hardy except in sheltered positions near the sea. A much more hardy and reliable plant which is just now in full bloom is *M. uncinatum*, which has tough but slender, curiously jointed stems, and bears a profusion of pretty pink flowers. The dwarf alpine Thistle *Carlina acaulis* makes an excellent wall plant, and is only just opening its large whitish blooms, which are quite 4 inches or 5 inches across. Very slender and graceful but yet very hardy is *Tunica Saxifraga*, with its pendent flowers of a delicate blush white or pale pink. The blue *Campanula pumila* makes a good companion to the latter, and in most places has not yet finished blooming. In walls whose interior is filled with good soil *Campanula isophylla* and *C. isophylla alba* would do well in a warm sheltered situation, but perhaps the best of all wall plants for this month are the Sedums. Of this useful race of very hardy plants quite a number are now in full bloom, including the yellow *Sedum bridgeanum*, the pale pink *S. corsicum*, which with its red stems and thick fleshy leaves is particularly striking, the deep yellow *S. kamschaticum* and its variegated variety, the pale pink *S. populifolium*, and the somewhat tall deep yellow *S. middendorffianum*, the bright crimson *S. sibiricum*, and the curiously formed yellow-flowering "Coxcomb" *Sedum (S. monstrosum)*.

#### WORK IN THE WALL GARDEN.

During this month there is plenty of important work to be done in the wall garden. Now is a good time to divide plants which have finished blooming and to prick them off into crevices of the wall with a view of having them established before winter sets in. Seeds, too, of such varieties as are easily propagated by seeds may now be sown direct into the crevices. To do this successfully it will in most cases be necessary to insert into the crevices small wedge-shaped pieces of stone, driving them in with a mallet or hammer so as to form a foundation for soil in which to sow or plant. After sowing more soil and more wedge-shaped stones may be rammed into the crevices. Probably some of the seed so sown will not germinate till the spring. Plants in pots should not be planted into the wall garden till next month.

Exeter.

F. W. MEYER.

#### EDITOR'S TABLE.

##### BULBS OF NARCISSUS EMPEROR.

Messrs. J. R. Pearson and Sons, Chilwell Nurseries, Lowdham, Notts, send us a few bulbs of this grand Daffodil, as they say "Just to show you what our Lowdham soil can do." The bulbs received certainly are unusually fine ones, the largest one weighed half a pound. With such home-grown specimens as these before one, one has no reason to feel uncertain as to the bulb-producing capacity of British soil! They were splendid.

##### LILiums FROM COLCHESTER.

Messrs. Wallace and Co., Kilnfield Gardens, Colchester, have sent us specimens of two very interesting Liliums, the one *L. Alexandræ* and the other *L. bakerianum*. The flowers of *L. Alexandræ* are large, white, and sweetly scented, those of the Burmese *L. bakerianum* are smaller, cup-shaped, and heavily marked with dark crimson on the lower half of the petals. Some of the white star-shaped blooms of the Mexican *Milla biflora* were also sent.

##### SINGLE-FLOWERED TUBEROUS BEGONIAS.

Messrs. Storr and Storr, Dundee, write: "We have pleasure in forwarding you a box of sample blooms from our strain of giant single Begonias. These are cut from seedlings selected during the past few years, and are representative, while the colour range is very comprehensive, embracing many shades of white, pink, rose,

crimson, scarlet, salmon, and yellow. This strain, which is the result of six or seven years' careful selection, is remarkable for the robust, giant habit and erect growth of the plants."

[The flowers which accompanied Messrs. Storr's notes were of excellent form, large, and of beautiful colouring.]

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

August 26.—Harpden Horticultural Show.

August 27.—Bath Floral Fête.

August 28.—Sandy Horticultural Show; Stirling Horticultural Exhibition.

August 29.—Bradford Horticultural Show (two days).

September 2.—National Dahlia Society's Show and Royal Horticultural Society's Meeting, Drill Hall, Westminster.

September 3.—Glasgow and Preston Shows (each two days), and York Florists' Exhibition.

September 4.—Paisley Horticultural Show (two days).

September 6.—Thornton Heath Dahlia Show.

September 10.—Royal Caledonian Horticultural Show at Edinburgh (two days).

September 16.—Dahlia Show, Royal Aquarium (three days).

September 18.—Great Fruit Show, Crystal Palace (the Scarlet).

**The Three-day Lychnis.**—This noble herbaceous plant is a much finer thing in our Scottish gardens than it generally is in the south.

In suitable soil the stalks reach a height of about 6 feet, the double sort producing broad and deep trusses of its glowing flowers, which last in beauty for a long time. Though the plant is common it appears to have its likes and dislikes. For example, it must have room to grow and not be crowded by other plants, and on that account it does not prove suitable for borders planted rather for effect than for the beauty of the plants individually. It is generally propagated by division, but stock can be much more rapidly increased if some of the flowering stems are selected previous to the flowering stage being reached, and these cut into short pieces with eyes strike root readily in a cold frame. Rockets and many other plants may be propagated in the same manner. Though there are many varieties, single white, flesh colour, and red, and there used to be a double white form, none of these are of any value when compared with the double scarlet. The single, it may be noted, is readily increased by means of seeds. Few of our exotic flowers possess so many names as this. Among the oldest are The Nonsuch, Flower of

Bristow, and Flower of Constantinople. "Bridget in her Bravery," not so long ago in use in the south of England, has a flavour of bygone days. We also find it as Scarlet Cross and Knight's Cross, and Evelyn seems to refer to it under the name of "Chalcedons." Among Scotch gardeners of an older generation it was invariably called Scarlet Lightness, and if I am not mistaken the more painstaking were accustomed to stake out each stem individually. It, moreover, has the honour of being the flower Parkinson holds in his hand in his portrait in the *Paradise*.—R. B.

**Lobelia tenuior.**—For several recurring summers this *Lobelia* has formed a very notable feature in No. 4 greenhouse at Kew, and when its great beauty is taken into consideration one is surprised that it is not met with in most gardens. True, the charm (to many) of novelty cannot be claimed for it, for it was introduced from the Swan River district of Australia about the year 1838. It only needs to be taken in hand by one of our large market cultivators, such as Mr. Sweet of Whetstone, to have its merits appreciated everywhere, as the rich cobalt blue flowers, nearly an inch across, supply a colour that is but little represented among cultivated plants. This *Lobelia* reaches a height of a foot or more, and like its better known and popular relative, *Lobelia speciosa*, it will continue to flower throughout the summer months. There is a certain variability in colour among seedlings of *L. tenuior*, and doubtless with extended cultivation distinct varieties would arise.—H. P.

**Hardy Azaleas.**—In answer to your correspondent "Tuscan," page 57, the hardy



CEANOTHUS MARIE SIMON. (See page 131.)



Azalea known as the Old Yellow is the typical *Azalea pontica*, known now as *Rhododendron flavum*, a native of the Black Sea region, and was introduced into this country in 1793. The other old varieties such as Messrs. Osborn used to grow are now almost ousted from cultivation by the larger-flowered class, in the production of which *Azalea sinensis* or *mollis* has played a part, and consequently they are but little grown in nurseries and very difficult to obtain.—H. P.

**Asclepias curassavica.**—The genus *Asclepias* is an extensive one, containing as it does many hardy as well as tender kinds. The showiest and most popular of the hardy species is *A. tuberosa*, whose umbels of orange-scarlet flowers form a notable summer feature in the garden. Occupying a similar position (*viz.*, the best) among the tender kinds is that at the head of this note—*A. curassavica*, a native of tropical America, from whence it was introduced as long ago as 1692. In most works it is referred to as a warm house or stove plant, but just now some plants of it, plunged in the turf out of doors at Kew, are particularly attractive, for they are freely bearing their umbels of orange-scarlet flowers, which thus exposed to the sunshine are of more vivid a tint than in a shaded structure. This *Asclepias* is a quick growing sub-shrub, whose upright shoots are clothed with Willow-like leaves. It succeeds best if kept fairly dry in the winter in the warmest part of the greenhouse, and cut back to good strong eyes before starting into growth in the spring. It is very easily raised from cuttings. The seeds of this are provided with a silky wing, by means of which they float considerable distances, hence in many parts of the tropics it is regarded as a troublesome weed.—T.

**The Royal Horticultural Society.**—A meeting of the fruit and vegetable committee was held at Chiswick on the 14th inst. to examine the earlier maturing of the Potatoes grown for trial this season. Present: Mr. A. Dean, in the chair, and Messrs. J. Smith, J. Willard, W. Bates, G. Wythes, H. Markham, G. Reynolds, S. Mortimer, H. J. Wright, W. Pope, and G. Woodward, thus constituting a quorum. The Potatoes had in many cases suffered from late frosts, materially checking their growth, whilst some late strong growers had spread tops some 4 feet in width. All these late ones were left for examination several weeks later. Of the large number lifted some ten were ordered for cooking, two being older varieties of esteemed merit where-with to test quality. Ultimately, after being cooked—work that is admirably done at Chiswick—it was agreed to give awards of merit to New Century (Dickson, of Chester), a short top, first early Kidney, a great cropper, and of high excellence; and to Northumbria (Wythes), a handsome even white round, raised by crossing Syon House Prolific with Sutton's Seedling. It is a capital cropper. Four very fine croppers—Alderman (Sharp), Crampton (Brydon), Earl Roberts (Bradley), and New Seedling Round—were found yet immature, and will be tested again later. It was resolved to ask the council, in addition to the customary Pea, Potato, or other trials, not necessarily large ones, to have thoroughly representative trials of climbing and dwarf Kidney Beans and Vegetable Marrows next year. It was also desired that a limitation should be put on the number of varieties sent by any one person or firm, as only the very best strains are desired. Some other products suggested for trial were unsuited for the very porous and readily exhausted soil of Chiswick. The Tomatoes are usually seen at this time, but they, in common with so many things, are late this season.

**Three flower beds.**—I describe three flower beds of small size filled with cheap and easily procured plants flowering from the time they are bedded out until they are pulled up in November. The first consists of light mauve *Heliotropes* and *Gazania splendens*. The orange and mauve flowers look well together, and bloom at and for the same length of time. Both plants grow best in a sunny spot. The second flower bed is filled with the heart-shaped leaved single white *Campanula* (perennial) and blue *Lobelia*.

These plants flower rather late in June and sometimes not until July, but they keep in flower until there is a frost if the dead flowers are picked off the *Campanula*. The third flower bed is composed of single white *Petunias*, rosy scarlet *Geraniums*, and dwarf *Nasturtiums*, either scarlet or rose-coloured, to harmonise with the *Geraniums*. These last plants, with the addition of three *Marguerite* plants in the background as a support for the *Petunias*, make an effective show in a window box. Some of the *Petunia* stems remain upright and some fall with the *Nasturtiums* in festoons over the edge of the box.—WINIFRED SPURLING.

**Bulbs for the Royal parks.**—Messrs. W. Cutbush and Son, nurserymen, Highgate, N., have received the following letter from His Majesty's Office of Works: "I am directed by the First Commissioner of His Majesty's Works, &c., to accept your tender of the 21st ult., for the supply of bulbs for bedding purposes in the coming season to the Royal parks and gardens in the charge of this department.—(Signed) W. J. TOWNER."

**Improvement of flower exhibitions.**—No one will, I think, gainsay the suggestions put forth in the leading article in THE GARDEN of the 9th inst. as to the improvements that might be effected in our flower shows. Among other matters there is a great tendency to stage the plants too high, hence it is impossible to see them to the best advantage. We may, however, see a change in this respect, for Messrs. Wallace's collection at the Holland House Rose show was grouped on the grass and attracted a good deal of attention, owing to its departure from the usual lilies. Another and a very important matter which is particularly noticeable each year at the Temple show is the overcrowding of plants of especial interest by numbers of common subjects, so that one is apt to overlook the choicest gems. Just after the Temple show this year Mr. Elwes raised a protest against this in the *Gardeners' Chronicle*, and suggested a space be put aside for choice and interesting subjects, so that while the real plant lovers would be attracted there, those of the public fond of a showy display would find plenty to interest them elsewhere.—H. P.

**Outdoor Tomatoes.**—Although just the same careful treatment, attention, and culture has been bestowed on Tomato plants this year outdoors that was given in some preceding years, there is at present a very poor prospect of a crop of fruit being obtained. All the culture in the world cannot do for these warmth-loving plants what the sun can do, and whilst culture has been freely provided the sun's rays have been specially lacking. What is to be done? That is a question that myriads of Tomato growers are asking, and specially so are those who have put out thousands of plants in the ordinary way, and are even yet spending much time and labour in tying, pinching, and otherwise attending to them. Certainly it will be useless to allow the plants to set more than two or three trusses of fruit, pinching out the tops and any other trusses that may form. That seems to be all. Those who have but a few plants put out, and amateurs especially, may try to lift some and get them into pots, then into a greenhouse early in September to help them to ripen their fruits.—A. D.

**Figs at Chiswick.**—It is doubtful whether the Royal Horticultural Society has a more valuable horticultural asset than is the remarkably fine collection of Figs growing there in pots under glass, and which is probably the finest and most complete in the kingdom. Mr. S. T. Wright mentioned the other day that he had some eighty varieties. It will be a matter of surprise to many to learn that there is so large a number presumably distinct in commerce. The plants have become so large through the excellent culture and liberal feeding bestowed that, although all roots are much restricted necessarily in pots, they have entirely overflowed the large span house for some years given over to them, and now fill also one of the large lean-to's at the back of the flower garden leading to the old council chamber, and very soon yet another house must be utilised, as in the span house the plants

are far too crowded. This is just one of the things, perhaps a minor one, yet far from being a trivial one, which shows so forcibly the need there is for a new and larger garden and plenty of first-class glass houses, such as a Royal Horticultural Society might be proud to possess. It is interesting to learn that Figs as dessert fruits are very popular amongst the Fellows and are in great demand. That fact shows that there is a good opening for first-class Fig culture on the Chiswick lices if conducted for profit. It may be said that a great horticultural garden should be utilised for other purposes than in growing Figs or other fruits for the Fellows. But it should be remembered that to exhibit the highest examples of fruit culture and testing all the best kinds and varieties could not be conducted without producing fruit, and when it is so produced it is satisfactory to find that it has a ready market provided without trouble. Those who want a limited collection of the best varieties—for fruits differ greatly as to flavour and sweetness—should study the report on them in the society's journal, or write to the Chiswick superintendent for a select list, which will be readily supplied to Fellows.—A. D.

**The American Chrysanthemum exhibition.**—The date of the above exhibition, to be held under the joint auspices of the Chrysanthemum Society of America and the Horticultural Society of Chicago, at the Art Institute, Chicago, was first set for November 4 to November 8, but has now been changed to November 11 to November 15 inclusive. This is the first exhibition attempted by the national society, and the arrangements made for it by the local society are most satisfactory. The main exhibition hall is 60 feet wide by 220 feet long and 30 feet high, with an annexe 40 feet by 80 feet. The conference hall—a beautiful and commodious chamber—in the same building can be secured for meetings and discussions as may be found necessary. More delightful and appropriate surroundings for the great Chrysanthemum renaissance of America could hardly be imagined, and the building is located in the very best section of the city for the accommodation of visitors of every class and from every direction. The preliminary list of premiums has been out for some time, and copies of the same may be had by addressing Mr. Edwin Lonsdale, secretary, Chestnut Hill, Philadelphia, Pa., or Mr. E. A. Kanst, assistant secretary, 5700 Cottage Grove Avenue, Chicago.

**The Royal Horticultural Society's committees at play.**—A report as to the prospects of the proposed friendly match at cricket between the fruit and floral committees was made to the members of the former committee, from whom the challenge emanated, at the meeting at Chiswick on the 14th inst. It is most pleasant to learn that Leopold de Rothschild, Esq., has kindly consented to allow the match to be played in Gunnersbury Park, the date being September 3. (Wednesday), the day after the first Drill Hall meeting of that month. Mr. G. Woodward will, in the unavoidable absence of Mr. W. Poupart, captain the fruit committee team, and it is hoped that the floral team will, as with the other team, consist of recognised members of the floral committee solely. All arrangements as to lunch, tea, &c., were left in the hands of Messrs. S. T. Wright, J. Hudson, and G. Reynolds. Wickets to be pitched at 11.30 sharp.

**Mr. George Nicholson.**—Some time since it was decided by some of Mr. Nicholson's friends and colleagues to offer him, privately, on the occasion of his retirement from the Curatorship of the Royal Gardens, Kew, some tangible evidence of the high regard in which he is held. A committee consisting of Mr. W. Marshall (treasurer), Mr. F. W. Burbidge, and Dr. Maxwell Masters was formed to carry out the proposal. Numbers of contributors, rather than large amounts, were solicited. The result has been very satisfactory, and Mr. Nicholson has selected various articles, the daily use of which will remind him of his old friends. The salver bears this inscription: "Presented to George Nicholson, V.M.H., late Curator of the Royal Gardens, Kew, by his friends and colleagues, who, while admiring his



qualifications as a man of science and a gardener, have a warm appreciation of his worth as a friend. 1902."

**Tuberous-rooted Begonias at Totteridge Park.**—Tuberous-rooted Begonias are so rarely met with in superb condition, except in the collections of trade growers and specialists, that to meet with plants bearing large handsome blooms is a fact worth recording. Double-flowered tuberous-rooted Begonias are well grown at Totteridge Park, and this season Mr. J. Brooks, the gardener there, has excelled to a remarkable degree. One long lean-to house is principally devoted to these plants, and on the occasion of our visit, a day or two since, excellent specimen plants were carrying flowers of high quality. Contrary to the usual rule in most establishments, the plants here are in 5-inch and 6-inch pots, and there is no doubt whatever that they appreciate these less roomy pots for their fleshy roots. The colours of the flowers were very varied—crimson, red, pink, rose-pink, salmon, yellow, primrose, and white flowers were abundant, and there were, besides, many intermediate shades. The plants were branching, yet compact, and, contrary to what one generally expects when handling them, the large heavy blossoms showed no disposition to drop from their fleshy flower-stalks. In the collection are a few good seedlings, of which the raiser is justly proud.—D. B. C.

**Lilium giganteum failing.**—The editorial answer to "British Columbia" on this subject in *THE GARDEN* for August 9, more particularly the last half, deserves attention, for during the dormant season large bulbs of *Lilium giganteum* are often brought under one's notice, with the assurance that they will bear a fine spike of bloom. I have been tempted to try them several times, but the result is always the same, viz., a spike about 3 feet high, with two or three flowers partially developed, while the other buds drop without opening. They were grown in pots and intended for indoor decoration. On the other hand, some grown from suckers, potted on when necessary, and with good healthy roots flowered grandly, though they were given exactly the same treatment. I am fully convinced that these large fine-looking bulbs, without any roots and yet containing the flower spike in embryo, cannot be depended upon, however treated, to give satisfaction.—H. P.

**The Phlox as a lawn plant.**—During the spring and early summer we have such a wealth and abundance of bloom with our *Rhododendrons*, *Azaleas*, and other early flowering trees and shrubs that the most ardent lover of colour effect on our lawns cannot help but be satisfied. During the summer and autumn, however, a dearth of colour in this direction has generally been regretfully endured under the impression that the inevitable must be accepted. That this is not so was convincingly brought to my notice a few days ago on visiting the beautiful gardens of Mr. Harry J. Veitch at East Burnham Park, where a great number of early spring flowering trees and shrubs has been planted of late years. In the beds (especially those of *Rhododendrons* and *Azaleas*) many summer and autumn-flowering things have been planted, securing an uninterrupted succession of beautiful effects well into the autumn. The dominant feature now is the *Phlox*, planted in masses of self colours, chiefly brilliant crimson. Whether the season has specially suited the *Phlox*, or unusual care and attention have been given to its culture, the effect produced by these well-flowered plants was certainly very striking.—O. T.

**Olearia macrodonta** seems quite hardy here, having passed through the last two winters without any protection. *Olearia Haastii* is now a huge bush, having stood six winters. It is as yet only in bud.—M. P. FORSTER, *Penrith*.

**Carnation Alice Ayres.**—In Park Lane a few days ago I took occasion to notice the summer bedding arrangements in this famous part of Hyde Park Gardens and was disappointed at not finding them of the usual excellence, the adverse condition of the weather during the summer being no doubt responsible for the absence of free growth and floriferousness of the plants.

Among the most notable and useful of the plants employed was a *Carnation* bearing the above name. This is of strong and excellent growth, and as free flowering as a *Pink*; the colour is white, flaked with pink. The groundwork of the bed was planted with blue and mauve *Violas*, producing a novel and decidedly pleasing effect.—O.

**Violas Nellie Riding and Seagull.**—Those in search of really good bedding *Violas* should not fail to obtain the varieties *Nellie Riding* (yellow) and *Seagull* (white). In colour *Seagull* is the purest white I know. The bloom is of good size and substance, and the plant is practically perpetual blooming. With me it has been a mass of flower since the end of April, and is likely to continue so to the end of the summer. *Nellie Riding* is one of the richest yellows we have. The flower is large and practically rayless, and as regards growth and constitution is equally as good as *Seagull*.—*Viola*.

**Sciadopitys verticillata.**—This beautiful Japanese conifer, so oddly termed the "Umbrella Pine," is doing so well at Coombe Wood that it is a matter for surprise it should so seldom be seen doing well when planted in gardens. In the nursery it seems to thrive as though it were a common conifer, and the specimens which are transplanted every two years at least are literally green as grass. On enquiry as to the cause of failure in gardens I was told that it was largely due to the selection of sites that are too dry, whereas the plants seem to like a cool moist base, with some peat and a little quite short manure. That the *Umbrella Pine* in specimens of moderate dimensions is unusually handsome there can be no doubt.—A. D.

**Buddleia variabilis.**—A strong growing form or rather forms from China of this well known shrub, for, as the title implies, there are several varieties, has very robust wood growth, large lanceolate leafage, and carries at the points of the shoots long purplish or heliotrope-coloured inflorescences. The plants flower through August, hence have merit in that respect. They would do admirably planted in the semi-wild garden as they need ample room.

**Eucryphia pinnatifolia.**—This is one of the most beautiful of autumn or late-flowering shrub trees, for the *Eucryphia* partakes of both. The great specimen just now in beautiful bloom at the Coombe Wood Nursery is an object worth going a long distance to see. We have nothing like it amongst deciduous things blooming so finely at this time of the year. This specimen is some 15 feet in height and 8 feet through, has small *Berberis*-like leafage, and is covered with single cup-shaped flowers, something like those of *St. John's Wort*, in colour pure white. Half a century ago this plant, had it been known, would have been grown under glass.—A. D.

**Astilbe chinensis var. Davidi.**—It was indeed a joy to see this superb new hardy plant at the last Drill Hall meeting, but it was a far greater pleasure to see it in the bright light of the open day as growing in the nursery at Coombe Wood, where I saw a small colony of it a few days since. Of several forms of *chinensis* this is by far the best; indeed, it is entitled to rank as the finest hardy herbaceous plant that has been introduced to Britain for many years. With us the variety has special merit, because it blooms after most of the other *Astilbes* are over. When in full strength its noble red inflorescence, most beautifully suffused with blue, reaches to a height of 6 feet; it should be a grand plant to intermingle with the white-flowered *Nicotiana sylvestris*. The inflorescence is spiral and on strong stems, ranging from 16 inches to 20 inches in length. Judging from the nature of the soil at Coombe Wood, it looks as if the new plant, like the *Meadow Sweet*, appreciated ample root moisture.—A. D.

## TREATMENT OF GROUND BENEATH TREES.

How frequently in gardens is the ground beneath the shade of trees an eyesore, even

where, with this exception, are fulfilled all the conditions of a well-ordered and well-cultivated garden. In some instances this may no doubt rightly be attributed to ignorance as to which plants will flourish in such a disadvantageous position, but more often we think the cause may be traced to a disinclination on the part of those responsible for the ordering of the garden to concern themselves in the matter. It is curious (the fact may be observed in many places) how assiduously and persistently some will labour in one certain part of the garden, sparing no pains whatever in its beautifying and maintenance, whilst another quarter, that under the shade of trees for instance, will practically remain unattended to, chiefly it may be supposed for the reason that no brilliant effects of colour can be there produced by means of flowering plants. This, however, is a poor excuse to offer for leaving in a bare and neglected condition a position that might at least be suitably and pleasingly covered with plants and shrubs of a variety and beauty of foliage by no means to be despised even in a more conspicuous and more favourable part of the garden.

Everyone knows how in almost every garden it is not difficult to find, under the spread of the branches of some lawn tree, ground that is absolutely without covering. The satisfactory clothing of this ground with suitable greenery may in some instances present a little difficulty, but we know from experience, and anyone may learn who will journey to the Royal Gardens, Kew, for there are several excellent object-lessons *apropos*, that such difficulties are not at all insurmountable. The ground beneath an old Yew tree will perhaps prove as difficult of successful treatment as any, for roots innumerable are near to the surface and make the ground extremely poor. Even the Yew, however, is not invincible in this respect, and when one has said this others individually need hardly be mentioned.

To say nothing of the improved appearance of the ground itself, the mass of greenery such as is furnished by some of the plants we shall mention is, in summer and winter alike, certain to be appreciated; in summer as a pleasing and restful relief from the flowers of many brilliant hues, in winter as a refreshing change from the monotony of bare and apparently unfilled beds and borders. Some little preparation is necessary in order that disappointment may not result. The surface soil should be dug over with a spade or fork, as circumstances permit, that is to say, as the roots of the overshadowing tree are many or few, deep down or near the surface, and the soil should be enriched also. This slight help, with careful and good planting, a suitable selection of plants, and timely periodical watering, should, and indeed will, quickly and completely transform what is more often than not an eyesore into at least a pleasing verdure.

Both major and minor *Periwinkles* are quite at home in hungry shaded ground; *Euonymus radicans variegatus*, a charming trailing plant, is equally so, and *Ivy* is of course entitled to rank with either. Others that one might mention are *Berberis Aquifolium*, *Aucubas*, *St. John's Wort*, *Gaultheria Shallon*, *Butcher's Broom*, *Snowberry*, *Cotoneaster microphylla*, and *Box*. Without pretending to give a complete list of plants suitable for present consideration, the right use of those mentioned will at least enable all who are so minded to remove what too frequently is altogether an unbeautiful spot, and at the same time to effect a permanent improvement. A. P. H.



## THE FLOWER GARDEN.

## MIXED SWEET PEA SEED.

WE have never before had cause to grumble at the unsatisfactory distribution of Sweet Pea seeds, and as the present season is remarkable for carelessness in this respect there is good reason why notice should be taken of it. Last spring we, like many others, purchased from a well-known seed merchant some forty varieties, and in so far as the germination of the seed is concerned the results were entirely satisfactory. As a matter of fact the results were better than usual. We always raise our plants in pots, and after a process of hardening off they are planted out in April. All went well until the flowering season came round. One of the first clumps of plants to come into flower was the new Miss Willmott, certainly one of the finest of the salmon-pink kinds in cultivation. To our dismay of the three plants in this small clump one gave flowers somewhat similar to Emily Eckford; this from a new sort seems hard to believe, yet there it was and is still, and there is no denying it. A little farther along the row is a clump of what was sent out as Coccinea, but one of the five plants is none other than Prince of Wales. A clump of Lovely is another instance, and in this case Triumph is the stranger. We could give several other cases, but these will be sufficient to prove that the matter is a serious one. In one clump of a supposed distinct variety no less than three sorts are now flowering. We cannot be charged with carelessness at the time of sowing, as the packets of seeds were opened one at a time, and a second packet was not proceeded with until the first one had been disposed of. Every possible precaution is taken to prevent mixing of the seeds. This note is written to impress upon seed raisers and others the need there is for extreme care in the harvesting, and as the present period is generally regarded as the season for seed-saving we sincerely hope there may not be a recurrence of the present season's experience. Those responsible for the distribution of seeds cannot well be too careful in looking over their stock, no matter whether they grow it themselves or whether it is grown for them. They do much to make or mar the prospect of the flower's popularity, and now that the humblest cottager is taking to growing a selection of named sorts there is every reason why the utmost care should be observed in the seed harvesting. B.

## NEGLECTED ANNUALS.

To mention a few of the more uncommon and neglected annuals suitable for borders and beds in the garden, and which are in flower at the present moment, may be of interest to many readers of THE GARDEN.

There is the pretty little *Mesembryanthemum tricolor*, which I have seldom seen in gardens I have visited, and which here seems to attract considerable attention and admiration. It is a very dwarf hardy annual, and is undoubtedly the most showy of all the annual *Mesembryanthemums*. It bears white as well as crimson and rose flowers, each an inch or more in diameter. The plant itself, with its cylindrical oval foliage, only reaches a height of 3 inches or 4 inches, but spreads 6 inches or 7 inches. When grown in a warm sunny position it flowers profusely. Here it grows in the gravel walks at the foot of the terrace walls, fully exposed to the sun, and during the sunny hours of the day its Portulaca-like flowers are so fully open and so abundant that very little of the foliage is seen. It is also grown here in shallow ornamental boxes for placing upon the top of low walls, where it is equally effective. It does well if sown in sandy light soil in the open garden about the end of April, but is preferably raised from seed sown in boxes under glass during the month of March. Notwithstanding what is said to the contrary, I find it not at all difficult to transplant successfully.

Another delightful sun-loving flowering plant is the *Leptosiphon*, the larger flowering *L. densiflorus* and *L. androsaceus*, are very attractive, but not nearly so beautiful as hybrids of *L. roseus* and *L. aureus*. I prefer to grow most flowers in clumps or masses of one colour, but make an exception with these *Leptosiphon* hybrids, as I consider a bed of mixed colours of this charming flower is far more effective than a bed of, say, *L. roseus*, by itself. The best results are obtained by sowing in the open bed, where they are to flower, some time during April.

*Abronia umbellata*, though really a perennial, is a plant well adapted for treating as an annual, and if sown in a bed in the open in April or May soon covers a considerable surface by reason of its trailing habit. There are plants here that have stems fully 2 feet or 3 feet in length. These long succulent reddish stems that lie flat on the ground but sprout out in a pleasing manner are not the least of its attractions. The Verbena-like clusters of rosy purple flowers are very pretty and spring up all along the procumbent stem; they are also slightly fragrant.

There is a plant which is always catalogued as

*Calandrinia grandiflora*, with large showy blooms of a bright rose colour that are drooping in the bud, but on opening the flowers are upright. It has pale green fleshy leaves, and the flowers reach a height of 10 inches to 12 inches. It is particularly well adapted for sunny exposed positions where the soil gets dry and baked with the heat, and should be sown in the ground where it is intended the plants should remain. There is another annual *Calandrinia* which is also worth growing, *C. speciosa*. It is dwarfer than the other, and has flowers of a deep purple-crimson; it also likes a dry sunny situation. HUGH A. PETTIGREW.

St. Fagans Castle Gardens.

## LONICERA HILDEBRANDTI.

WE are pleased to be able to illustrate this remarkable *Lonicera*, with *L. flexuosa* for comparison. This species has been written of on more than one occasion in THE GARDEN, and was one of the plants which much interested the late Mr. Ewbank, who flowered it outside at Ryde, and received a first-class certificate for it at one of the meetings of the Royal Horticultural Society. There



FLOWERING SHOOT OF LONICERA HILDEBRANDTI COMPARED WITH THAT OF LONICERA FLEXUOSA (ON THE RIGHT).

a half-hardy annual, and, so far as I have observed, has always been alluded to as an annual, but which I know from experience to be a true perennial. It is *Diascia Barbera*. It certainly requires a little protection through the winter, but if its roots are taken up and wintered in boxes in a frame and planted out in the spring earlier flowering plants are obtained than when treated as an annual. However, whether as annual or perennial, *Diascia Barbera* is an acquisition to any garden. Its pretty pink, coral-like flowers are in evidence throughout the summer, and as its habit is graceful it is always effective when in a bed by itself or at the front of a mixed border.

*Platystemon californicus* is a pretty dwarf annual that is not frequently met with, but is well worth a place in any border of hardy flowers. Its long cream-coloured petals with yellow blotches at the base remind one very much of a *Pinguicula*, while its unopened flowers have the appearance of upturned Snowdrop blooms. Its culture is the simplest, as it simply needs sowing where it is to flower, though it is essential that the seedlings be well thinned out. A very handsome annual is

is no question that this Honeysuckle is hardier than many suppose; it is at all events quite happy in southern gardens, and the flowers are remarkable both for their deep yellow colouring and their size. We received a cluster recently from Messrs. Veitch and Sons, of Exeter, who kindly sent the photograph from which the accompanying illustration was prepared, and the individual flowers measured 4 inches in length and 2 inches across the open end, while another attraction is the bright green leathery leaves. The late Mr. Ewbank wrote of it in THE GARDEN of August 25, 1900, as follows: "I learn from a kind letter, which I have had from Mr. Watson, that *Lonicera Hildebrandti* was first flowered at Glasnevin in 1898, at Kew in 1899, and a few weeks later in Edinburgh. All these performances must have been under glass, but Mr. Watson tells me that it is likely to be hardy in my garden, as he knows of a plant which has stood several years in the open in south Cornwall. If it should be really so, I have got hold of an acquisition for the Isle of Wight, whose value can hardly be surpassed. It is a magnificent Honeysuckle of a bright yellow colour, and of a size which puts all



other Honeysuckles into the shade. The large leaves also befit it well and are of a fresh green colour. . . . I may as well say that *Lonicera Hildebrandtii* was planted against a wall with a full western exposure; it is the only wall which I have that is available for the purpose at all. Several fine *Magnolias* have come to grief here. What was esteemed by me the largest *Fremontia californica* in the country perished in the same way; it simply died of sunstroke and nothing could save it at all." We should much like to know if this noble plant has succeeded in Midland gardens. At present our knowledge of it is scanty.

### TENDER WALL PLANTS IN THE SOUTH-WEST.

THE notes on tender shrubs and trees grown in the open in the south-west are fittingly supplemented by a passing reference to plants used for covering walls, mostly of climbing habit, but a few of shrubby growth.

*Bignonia (Tecoma) radicans* is a hardy climber, and *B. capreolata* may also be considered so. Other members of the family grown in the open are *B. capensis* (Cape of Good Hope), orange; *B. Cherere* (Guiana), orange-scarlet; and *B. speciosa* (Uruguay), pink. Greenway, on the Dart.

*Berberidopsis corallina*.—Chili. Drooping crimson flowers, borne in racemes in the autumn. This evergreen plant does best in peat or leaf-mould in a partially shaded position. Common.

*Bougainvillea glabra*.—Brazil. This climber cannot be considered a success in the open, even in the south-west; but I know of two gardens where it has been grown and flowered, but in neither case has it exhibited a tithe of the freedom of growth displayed by it under glass.

*Bucklandia populnea*.—Himalayas. A handsome evergreen foliage plant, said to grow to a height of 100 feet in its native habitat. Its large, heart-shaped leaves are tinted with bronze and maroon. Tregothnan.

*Callicarpa purpurea*.—India. An evergreen shrub, bearing small inconspicuous flowers, followed by violet-coloured berries. Trewidden, Penzance.

*Cassia corymbosa*.—Buenos Ayres. A rambling shrub, almost invariably grown against a wall, though I have met with it planted against a wire fence and spreading out on either side. In August it is a mass of golden-yellow bloom, some of which it often retains until Christmas. With wall protection it reaches a height of 12 feet or more, and when in flower is a striking object in the garden. It is fairly common in the south-west.

*Chorizema*.—Australia. Well known evergreen greenhouse plant, bearing Pea-like flowers of orange and red. Masses 7 feet in height and more in breadth grow against the walls at Trewidden, and commence to flower in March. *C. cordatum* and *C. Lowii* are the species generally grown.

*Cissus discolor*.—Java. A climber, bearing greenish yellow blossoms.

*Clematis indivisa lobata*.—New Zealand. This beautiful white-flowered *Clematis* grows well in many gardens, and commences to bloom in March.

*Clianthus puniceus*.—New Zealand. A brilliant-flowered evergreen climber, bearing large flowers, somewhat resembling lobster's claws, scarlet-crimson in hue. It sometimes commences to flower as early as Christmas, the number of its blossoms increasing until mid-May, when it is a glowing sheet of colour. The finest plant I know of is at Stoke Fleming, near Dartmouth, where it covers the side of a large house.

*Diplacus (Mimulus) glutinosus*.—California. Another popular greenhouse plant bearing buff flowers, which succeeds admirably against walls in many gardens, growing some 5 feet in height.

*Elaeocarpus cynenus*.—Australia. An evergreen plant of shrubby growth, bearing whitish blue flowers. Greenway.

*Ercilla (Bridgesia) spicata*.—Chili. A self-clinging evergreen climber, bearing inconspicuous flowers. Fairly common, but scarcely attractive.

*Hibbertia dentata*.—Australia. An evergreen climber, with foliage of deep bronze, bearing single bright yellow flowers in April. Trewidden. H. Reidii, also yellow-flowered. Tregothnan.

*Hydrangea scandens*.—Japan. A rampant-growing climber bearing flat flower-heads composed of blooms, the minority of which are sterile. It clings naturally, and is displayed to best advantage when allowed to ascend a bare tree trunk. At Menabilly, Cornwall, a specimen planted twelve years ago has ascended the columnar trunk of a Turkey Oak to a height of almost 40 feet.

*Inga pulcherrima*.—Mexico. An evergreen shrub, bearing bright scarlet flowers in summer. A fine plant, covering a large expanse of wall, is at Greenway.

*Kennedyia nigricans*.—Australia. An evergreen climber, bearing violet-purple flower racemes of small, Pea-like blossoms. Greenway. *K. alba* is also grown.

*Lapageria*.—Chili. This handsome evergreen climber, producing long, wax-like blossoms of white and rose, is well known under glass. In the south-west it does well in the open against a north wall in peaty compost, often bearing its flowers as late as Christmas.

*Lasiandra (Pleroma, Tibouchina) macrantha*.—Brazil. A beautiful evergreen shrub of climbing habit, bearing large violet flowers. It is usually cut down by frost, but breaks again strongly in the spring. Trewidden and other gardens.

*Mandevilla suaveolens*.—Buenos Ayres. A lovely deciduous climber, bearing large white, deliciously fragrant flowers in August. It does well in several gardens in the south-west, in some of which it seeds freely.

*Michelia (Magnolia) fuscata*.—China. A deciduous shrub, bearing dull purple, sweetly scented flowers. Tregothnan.

*Phenocoma prolifera*.—Cape of Good Hope. An evergreen shrub, bearing large, terminal, crimson flower-heads. Trewidden.

*Physianthus albens* (syn. *Arauja albens*).—Brazil. An evergreen climber, bearing a profusion of white flowers, which later assume a reddish tinge. Common in the south-west. The finest specimen I have seen grew against a cliff-face in the public gardens at Torquay. It spreads to a height and breadth of considerably over 20 feet, and one year bore over a dozen huge, corrugated seed-pods about the size of a cricket-ball, but oval in shape. This strain killed the plant, but a young one has now taken its place.

*Plumbago capensis*.—Cape of Good Hope. A climbing evergreen shrub, bearing large heads of pale blue flowers; a favourite conservatory plant. It is grown in several gardens, and flowers well in the open. A fine example, which has been unprotected for five winters, is growing in the same site as the *Physianthus* alluded to above.

*Pueraria thumbergiana*.—Khasia. An evergreen climber, with leaves 5 inches in diameter, bearing blue flowers. Fibre is obtained from the stems and starch from the roots of this plant. Tregothnan.

*Rhodochiton volubile*.—Mexico. A climber, bearing blood-red, drooping flowers. This plant, in common with *Lophospermum* and *Maurandya*, all three of which are perennials, is almost invariably killed by the winter, but is easily raised from seed. Rosehill, Falmouth.

*Rhynchospermum (Trachelospermum) jasminoides*.—Shanghai. An evergreen climber, hardy in the south-west, bearing countless starry white flowers, most delicately perfumed, in August. It is to be met with in the majority of gardens, and in one it has covered the house-porch.

*Ruscus androgynus* (syn. *Semele androgyna*).—Canary Islands. An evergreen climber, valuable for its striking foliage. The leaves, or rather cladodes, are over a foot in length, and are furnished with from twelve to twenty pinnate sections of a glossy green. Penjerick, Falmouth, where it has borne its inconspicuous, greenish white flowers.

*Solanum Wendlandii*.—Costa Rica. An evergreen climber, bearing clusters of large, lilac-blue flowers 2½ inches in diameter. The late Rev. H. Ewbank, in whose garden at Ryde the finest specimen I have seen was growing, considered it the best of all the tender climbers amenable to open-air culture in the south-west.

*Sollya heterophylla*.—Australia. Bluebell

Creeper. An evergreen climber, bearing drooping blue flowers. Tregothnan.

*Stauntonia (Holballia) latifolia*.—Himalayas. An evergreen climber, with oval, leathery leaves, bearing in April clusters of greenish white flowers delightfully odorous. A very common plant in the south-west.

*Streptosolen Jamesonii*.—Columbia. A handsome evergreen shrub, in great request for clothing conservatory pillars, &c. It bears panicles of orange-red flowers, and when in full bloom has a brilliant effect. A plant about 7 feet in height is growing against the house at Trewidden.

*Suarinosa albiflora*.—Australia. An evergreen leguminous shrub, bearing white Pea-like flowers, well known in greenhouses. It is grown in several gardens, and, if cut down by sharp frosts, breaks strongly again in the spring.

*Tacsonia exoniensis*.—A hybrid between *T. Van Volxemi* and *T. mollissima*, bearing bright rosy pink flowers. Trewidden.

*T. mollissima*.—Quito. A vigorous species, bearing pink flowers, with tubes from 4 inches to 5 inches in length. Though Quito is on the Equator, its height above sea-level being 9,600 feet, the temperature is not unduly high. There is a large plant, which has had to be kept within bounds by periodical pruning, at Rosehill.

*T. quitensis*.—This is probably identical with the last-named. The foliage is similar, but I have not yet seen it in flower. S. W. F.

### THE ROSE GARDEN. A TOWN OF ROSES.

A STRANGER to the busy and thriving Berkshire capital of Reading, I was not prepared for the marvellous display of Roses, not only in the country gardens around but in well-nigh every little plot or front alike throughout the city. It seemed as if by general consent everyone had said, "This year is Coronation year, we will, therefore, give pride of place to our best and chiefest national flower," and accordingly plumped for the Rose with one universal accord. The writer had the privilege of visiting many gardens and grounds in and about the environs of Reading. One somewhat more extensive than her fellows had its *Crimson Rambler* in the fullest bloom, gracefully trailing over archways, and presented a perfect mass of gorgeous colour. Never do I remember the Rose so fine and vigorous or with larger and cleaner flowers than those around this neighbourhood this year. Their excellence in these parts, too, is the more remarkable seeing that the soil is not clay at all, but in very many cases an exceedingly thin layer of earth upon thick beds of gravel, which clearly proves how satisfactory a result can be produced with the Rose with suitable added substance and reasonable, perhaps I should say intelligent, attention. On the higher ground, in the sanctum of an old grower now retired on his laurels, some superb Teas were in evidence, several being maidens on budded Briars. I must mention a promising *Carmine Pillar*, its rarely brilliant bloom suggesting great possibilities in the future, while representing the pick of Roses in general I noticed A. K. Williams, Her Majesty, Marie Van Houtte, Merveille de Lyon, and The Bride, that exquisite almost pure white flower, a sport from Catherine Mermet. Here, too, the *Crimson Rambler* largely asserted itself, a very striking festoon towering in the exact centre of the garden and keeping watch as it were over its more lowly and humbler neighbours. Very beautiful, too, were the many varieties of the Penzance Seedling Briars, though the peculiar bronze-coloured Austrian kind had already shed its glories. All round this region the useful old-fashioned Cluster Rose (the Maiden's Blush) might be seen, of particularly robust and kindly growth. Good old "Glory to thee, John" had I suppose disposed of its first crop, for I somewhat missed our ancient acquaintance, as, too, the pretty



Homer Rose, which seems to have dropped out of the running somehow nowadays. Of various other gardens about the borough itself I had a passing glimpse, and even with the same impression, a uniform excellence appeared to have possessed the Rose, no matter how grown, whether dwarf, standard, or climbing.

Further afield, and though quite out of Reading, yet appertaining in a measure to its county town, I viewed a display hard to beat outside a nurseryman's grounds in any of the home counties. Grown extensively in regular rows and in distinct kinds was opened to our view the Rose in her most perfect form and culture. To give a list of the blooms seen here would be but to run through the very cream of a grower's catalogue. It must suffice, therefore, if I name but a very few of the many choice specimens here afforded. Very striking among climbers were *Lucida Plena*, *L'Idéal* (peculiarly charming when in bud), and *Aimée Vibert*. Somewhat unusual and of wonderful success were the budded Teas on high standards, a bold proceeding and one that had fully rewarded the grower. Prominent among such were a White Maman Cochet, the deepening yellow Princess of Wales, Jean Ducher, Rainbow, Hon. Edith Gifford, and Mme. de Watteville, a salmon-white Rose, with petals delicately edged with carmine. That delightful Rose Comtesse de Nadaillac, grown against a wall, was of superb beauty and possessed phenomenal wealth both of wood and size of bloom.

Among Hybrid Perpetuals on the Manetti we feasted our eyes upon rows of Mrs. J. Laing, S. M. Rodocanachi (a noble Rose but practically scentless), and Jeannie Dickson, while H.P.'s were grandly represented by Mrs. W. J. Grant, Kaiserin Augusta Victoria, the nankeen yellow Gustave Regis, and Viscountess Folkestone.

Lastly, I must record a short walk with an old judge and grower of Roses and a winner of innumerable trophies in his day. We were returning from a water excursion up the river, which proved somewhat of a fiasco owing to a midsummer deluge. Taking a cross cut on entering Reading from the further side we found a remarkable running panorama of Roses of great variety and beauty. The wandering suburban road was practically a new one, with houses but recently erected and all on one side only, being in a district but sparsely built over and in course of being opened up. My companion was eloquent in his

praise of the wonders of those little garden fronts, only a few feet square, yet each aglow with choice or showy specimens, just at their best and full of blooms.

Almost without exception house after house had its tiny pleasure ground tenanted by the Rose, whether dwarf or standard, trellised over an archway or trained against the wall; in many cases indeed all or most of these designs were combined. My recollection tells me of fine plants of *Devoniensis*, Marie Baumann, Rev. Alan Cheales, La France, Mme. Carnot, Boule de Neige, and Sylph. Truly our walk, a desolate and disconsolate one enough under the first conditions, was rendered by this happy coalition of circumstances a both delectable and instructive one.

VIATOR.

## NOTES ON HARDY PLANTS

### ERINACEA PUNGENS.

**C**LOSELY related to, and somewhat resembling the dwarf-growing *Genistas*, is this extremely rare and pretty little shrub. It grows very slowly, and rarely attains a height of 9 inches, spreading out in a mat-like mass rather than growing in an upward direction. The branches are short, stiff, and spiny, and what few leaves there are are small and not very noticeable. The Pea-shaped blossoms are borne several together during May and June from the axils of short, spiny branches, and are of a blue colour. This plant is a native of Spain, and has been in cultivation for a great number of years, never, however, having become at all common. This is no doubt due to the great difficulty there is in propagating it. Seeds appear to be the only means of increase, and these are borne very sparingly even when the plant is growing under natural conditions. It has been said to be a tender plant, but it has withstood several winters out of doors at Kew without injury. Plants are to be seen there near the Temperate house, and they flower every year.

W. DALLIMORE.

### THE HOLLYHOCK.

THIS homely old plant, introduced from China upwards of 300 years ago, used to be relied on by our best flower gardeners years ago as one of the chief factors in producing an interesting and beautiful effect in our borders and shrubberies during late summer and autumn. What glorious effect masses of these planted together used to give few will ever forget who have seen them. It is not too much to say of this noble flowering plant that when planted in groups of, say, five plants, in self colours of scarlet, pink, yellow, white, and black, whether the position in which they are planted is the back of the herbaceous border, an avenue by the sides of a garden walk, or as isolated beds on the lawn amongst conifers, that we have no other plant of equal stateliness and beauty. For the sub-tropical garden, planted in association with the many handsome and bold foliage plants we possess, it is simply invaluable, yet it is not so often seen planted in this way as one could wish. This is to be regretted, more especially as the plant succeeds so well in the dingy and smoke-laden atmosphere of our towns.

As a florist's flower in years gone by few have had more ardent or sincere worshippers than has the Hollyhock, and I would hail the day with delight that brought many lovers back to its shrine. Considered in this respect, special culture and special varieties—with which this paper does not pretend to deal—are necessary. The great value of the plant, in my opinion, consists in its character as a decorative garden flower. Even the single strong growing ones, when planted in shrubberies, give a delightful brilliancy in the autumn to an aspect of the garden which is often dull and commonplace. The chief cause of the unpopularity of this plant of late years, as is well known, has been the Hollyhock fungus; so virulent, indeed, at one time as to make it impossible to grow the plant at all with any satisfaction. It is still liable to attack, but when grown from seed—the plan I recommend—it is far less subject to it than when propagated from cuttings. Once the plants are attacked by this disease cure is difficult, if not impossible. The best way is to take the precaution that no other plants of the mallow family, by which the disease is often communicated, are growing anywhere near the Hollyhock, and on first discovery carefully pluck every leaf which may show signs of being affected and burn them; afterwards give the plants a heavy dusting of flowers of sulphur.

The best way to propagate plants for garden planting is undoubtedly by seed. Our seed growers have attained to a perfection in the art of hybridisation and seed selection as was never dreamed of years ago, when to grow the Hollyhock from seed, excepting for the purpose of raising new sorts, would have been scouted as impracticable, propagation by cuttings and divisions being the only method of increase then in vogue. The seed should be sown in July, or early in August is not too late. A good position in which to sow it is a border with a west aspect. If the seed is fresh and good the young plants will soon come up, and towards the end of October they should be potted into small pots and wintered in a cold frame, or they could be planted out in the frame at a distance of 5 inches or 6 inches apart. The plant is quite hardy in the south, but whilst young a very severe frost will sometimes cripple the seedlings, therefore it is better to give them the protection of a cold frame in winter. Early in the month of April they should be planted out in the reserve garden 2 feet apart each way in ordinary soil, and covered over with inverted flower pots at night until danger of sharp frost has passed away. Towards the autumn many if not all the seedlings will flower.

This is the time to select the best varieties for future planting. To grow



ERINACEA PUNGENS ON THE ROCK GARDEN.



the plant successfully it must be borne in mind that it is impossible to do so unless the soil in which they are planted is deeply trenched, at least 2 feet, and liberally enriched with well-decayed manure. When it is said that the plant may occupy the same position with advantage for a matter of three years, with little further attention as regards the roots, the good work done in the first instance is well justified.

The best time for planting in permanent positions—as regards the southern counties at any rate—is the autumn (September and October). In colder localities better results are obtained by giving the plants the shelter of a cold frame for the second year, and to plant out in permanent positions in April. They will afterwards take care of themselves. The plants may be relied on to come true to colour, and certainly 75 per cent. will prove to be double from carefully-selected seeds.

OWEN THOMAS.

## TREES AND SHRUBS FOR ENGLISH GARDENS.

### THE HARDY HEATHS.

(Continued from page 44.)

**ERICA ARBOREA.**—In one respect this is the most remarkable of all the Heaths that are hardy in Britain, for it attains the dimensions of a small tree. In the Isle of Wight—perhaps elsewhere—it has been known to grow 20 feet high, with a trunk 29 inches in circumference. It occurs wild and in considerable abundance along the Mediterranean coast region between Genoa and Marseilles, the wood being used largely in the manufacture of the so-called “Briar” tobacco-pipes—“Briar” in this case being a corruption of the French word *bruyère*.

All the Heaths are noteworthy for the freedom with which they blossom, but they do not equal in this respect *Erica arborea* and its near ally, *E. lusitanica*. The flowers are almost globular and nearly white; they are quite small individually, but so abundantly are they borne that the plants are literally almost covered with them from March to June. My experience of this species is that it is hardier and thrives altogether better in the London district than *Erica lusitanica*. It ripens seed most years and can thus be readily increased by natural means. The young wood is densely covered with short dark hairs, and the leaves are closely packed in whorls of threes.

*E. lusitanica* (*E. codonodes*).—To many people the name *lusitanica* as applied to this Heath will be, perhaps, unfamiliar. It is not so well known as *codonodes*, but is really an older name. This Heath comes, as its name implies, from Portugal; it is also found in Spain. It is often confounded in gardens with *E. arborea*, which frequently does duty for it. *E. lusitanica* is the rarer plant. Briefly, they differ in the following respects: The flowers of *E. lusitanica* are longer and more bell-shaped than the globular ones of *E. arborea*, and they have a delightful Vanilla-like fragrance; the foliage of *E. lusitanica* is a rather paler green and has a more plumose aspect, the individual leaf being longer and more slender; the young wood, although downy, is not so markedly hairy as in *E. arborea*. The remarkable abundance of its blossom has already been alluded to under the previous species. I have not seen *E. lusitanica* more than 4 feet to 5 feet high, possibly it grows twice as high under favourable conditions. In parts of Dorset it thrives exceedingly well. Near London it succumbs during severe winters,

although frosts up to 20° do not seem to injure it. Messrs. Veitch, of Exeter, have a Heath—probably a hybrid—intermediate between this species and *E. arborea*.

**General Notes.**—On the whole it may be said that few groups of flowering shrubs of similar size have as great a charm in the garden as these hardy species of *Erica*. Their usually neat habit, their wealth of blossom, and the length of time they remain in flower (sometimes three or four months) combine to make them indispensable to gardens where they can be accommodated. There are not more than about a dozen real species that can be grown in the open, but with perhaps one exception they are all valuable. If the whole group be grown one or more species may be had in flower during every month of the year except sometimes November. The plant sold as *mediterranea hybrida*—possibly a cross between *carnea* and *mediterranea*—has come into prominence in recent years and has proved a most valuable acquisition. I have noticed flowers open in November in some seasons. Every year some are expanded before Christmas, and during January it is one of the brightest of all outdoor plants. Thus it may be said to commence the *Erica* season. Following it come *Erica carnea* and its variety *alba*; then, in a cluster, we have *arborea*, *lusitanica*, *australis*, *mediterranea*, and its several varieties, which fill up the months from March to June. From June onwards there are *ciliaris*, *mawana*, *scoparia*, *cinerea*, and *Tetralix*; whilst *vagans*, and *multiflora* carry on the *Erica* season to October.

A peaty soil is undoubtedly the best for the Heaths taken as a whole. The great Heath nurseries are all on soil of that nature. But it is by no means essential. A loamy soil can, by the addition of leaf-soil, and, if necessary, sand, be made to suit all the Heaths. Some, including *stricta*, *carnea*, *cinerea*, and *mediterranea*, are quite at home on a calcareous soil. In all cases positions well exposed to the sun, with, if possible, cool moist bottoms should be selected for them.

The methods of planting and disposing these plants vary, of course, according to their size. The taller species, like *arborea* and *lusitanica*, are too tender to be planted promiscuously. They should be given a sheltered position and planted amongst or near other shrubs. In the south and western counties beautiful effects have been produced by planting them in irregular scattered groups, pretty much as one finds Gorse or Heather on a moor. *Erica mediterranea* and its varieties, a singularly beautiful group and considerably hardier than the two just mentioned, have flowers of various shades of purple and white. They are capable of making some of the most charming effects when planted in large masses, and are especially valuable for planting on gentle slopes or rather elevated ground. Dwarfier sorts, like *E. carnea* and its white variety (*alba*), *cinerea*, &c., are useful as edgings to formal beds of ericaceous plants; they are delightful also to grow in patches on the rockery or in front of a hardy plant border.

The common Heather of our moors and mountains (*Calluna vulgaris*) is a very near ally of the *Ericas*. Under cultivation it has produced many varieties. It likes a peaty soil or a sandy one, and is longer lived and more profuse flowering under cultivation in soil that is poor rather than rich. It is very charming when grown in natural looking masses in the wilder parts of the garden, and its value is all the greater because it flowers when almost all other shrubs are out of bloom—from July to September. Numerous varieties are offered

by dealers, amongst which the following are most noteworthy, either for their beauty or their distinctness: *alba*, *alba Serlei*, *Alporti*, *aurea*, *Foxii*, *Hammondi*, *hypnoides*, and *rubra*.

*St. Dabeoc's Heath*, as *Dabcēcia polifolia* is commonly called, is one of the most beautiful and valuable of this family. It commences to flower in June or July, and will continue till October or even November. It bears its flowers in erect terminal scapes, and they are of a lovely purple colour. There is a white-flowered variety (*alba*), and another called *versicolor*, which has flowers of both colours on the same plant and even individual flowers partly white and partly purple. This Heath is very abundant in Connemara. Naturally it acquires a straggling habit, but under cultivation this may be corrected by an annual shortening back of the shoots that have flowered. This operation, which is best performed early in the year before growth commences, can also be employed for the later-flowering *Ericas*, such as *ciliaris*, *Tetralix*, *vagans*, and *Calluna vulgaris*.

### THE BEST EVERGREENS.

I have prepared a representative list of the hundred species of evergreens which I consider most deserving of cultivation, and have roughly grouped them according to their size. Bamboos, which have been treated separately, and conifers are not included. There is, of course, a good deal of difference in the sizes to which evergreens attain, according to the climate in which they are growing. The grouping here is merely intended to give an approximate idea of their habit. Those marked with a dagger (†) are the more tender ones, and, although valuable plants in the southern and warmer parts of the country, had better be left out in the colder localities or given wall treatment.

Possibly I have overlooked some evergreens quite as good as those mentioned, and there are always some beautiful plants that do well in certain places but fail in the generality of gardens—such evergreens, for instance, as *Fremontia californica*, *Embothrium coccineum*, *Carpenteria californica*, and many other things like the New Zealand *Veronicas*, Himalayan *Rhododendrons*, *Escallonia*, &c. But, on the whole, these hundred evergreens, with the varieties that belong to them, represent very adequately the best of those that can be grown in the average climate of Great Britain and Ireland. A garden that contains them all is a well-stocked one.

#### Trees.

<i>Buxus sempervirens</i> and vars.	<i>Quercus Ilex</i> and vars.
<i>Ilex Aquifolium</i> and vars.	<i>Trachycarpus excelsus</i> (Chamerops Fortunei)
† <i>Magnolia grandiflora</i>	

#### Tall Shrubs (say 8 feet or more high).

<i>Arbutus hybrida</i> and vars.	<i>Prunus Laurocerasus</i> and vars.
„ <i>Meziesii</i>	
„ <i>Unedo</i>	<i>Quercus acuta</i>
† <i>Azara microphylla</i>	„ <i>coccifera</i>
† <i>Camellia japonica</i> vars.	„ <i>phillyraeoides</i>
<i>Cotoneaster buxifolia</i>	<i>Rhododendrons</i> , garden varieties
<i>Crataegus Pyracantha</i>	„ <i>catawbiensis</i>
<i>Laurus nobilis</i>	„ <i>Fortunei</i>
<i>Ligustrum lucidum</i>	
<i>Prunus lusitanica</i>	

#### Dwarf Shrubs (under 3 feet).

<i>Andromeda polifolia</i>	<i>Erica vagans</i>
<i>Azalea amena</i>	<i>Euonymus radicans</i> and vars.
<i>Bruckenthalia spiculifolia</i>	
<i>Bryanthus empetrifolius</i>	<i>Gaultheria procumbens</i>
<i>Calluna vulgaris</i> and vars.	„ <i>Shallon</i>
<i>Cotoneaster microphylla</i>	<i>Genista hispanica</i>
„ <i>rotundifolia</i>	<i>Hypericum calycinum</i>
„ <i>thymifolia</i>	<i>Kalmia augustifolia</i>
<i>Dabcēcia polifolia</i>	„ <i>glauca</i>
<i>Daphne Cneorum</i>	<i>Ledum latifolium</i>
„ <i>oleoides</i>	<i>Leophyllum buxifolium</i>
<i>Erica carnea</i>	<i>Pernettya mucronata</i> and vars.
„ <i>ciliaris</i>	
„ <i>cinerea</i>	<i>Rhododendron ferrugineum</i>
„ <i>mediterranea hybrida</i>	„ <i>racemosum</i>
„ <i>Tetralix</i>	<i>Vaccinium Vitis-idea</i>



*Medium-sized Shrubs (3 feet or more).*

<i>Acubia japonica</i> vars.	† <i>Garrya elliptica</i>
† <i>Azalea laedifolia</i>	† <i>Hydrangea Hortensia</i>
<i>Berberis Aquifolium</i> and vars.	<i>Ilex cornuta</i>
„ <i>buxifolia</i>	<i>Kalmia latifolia</i>
„ <i>Darwinii</i>	<i>Ligustrum japonicum</i>
† „ <i>japonica</i>	<i>Olearia Haastii</i>
„ <i>stenophylla</i>	<i>Osmanthus ilicifolius</i>
„ <i>wallichiana</i>	<i>Phillyrea decora</i>
<i>Ceanothus Gloire de Versailles</i>	<i>Pieris latifolia</i>
† <i>Choisya ternata</i>	<i>Pieris floribunda</i>
<i>Cistus laurifolius</i>	„ <i>japonica</i>
<i>Eleagnus macrophyllus</i>	<i>Rhamnus Alaternus</i> and vars.
„ <i>pungens</i> and vars.	<i>Rhododendron azaleoides</i>
† <i>Erica arborea</i>	„ <i>ponticum</i>
† „ <i>australis</i>	„ <i>myrtifolium</i>
† „ <i>lusitanica</i>	<i>Rosmarinus officinalis</i>
„ <i>mediterranea</i> and vars.	<i>Skimmia japonica</i>
<i>Escallonia philippiana</i>	<i>Ulex europaeus flore-pleno</i>
„ <i>rubra</i>	<i>Veronica Traversii</i>
† <i>Eucryphia pinnatifolia</i>	<i>Viburnum Tinus</i> and vars.
<i>Euonymus japonicus</i>	<i>Yucca angustifolia</i>
	„ <i>gloriosa</i>
	„ <i>recurvifolia</i>

*Climbers and Trailers.*

<i>Arctostaphylos Uva-Ursi</i>	<i>Vinca major</i>
<i>Hedera Helix</i> and vars.	„ <i>minor</i>

## TREES AND SHRUBS IN WINTER.

Although the conifers and other evergreens introduced from other countries have added so greatly to the warmth and attractiveness of gardens in winter, deciduous vegetation too is full of beauty then. As has already been said, it is the large deciduous trees natural to our climate that should predominate in the garden landscape, and not, as occasionally happens, the sombre hues of Spruce and Fir. It is in winter that one can appreciate best the graceful beauty of the Birch and Willow, and contrast it with the gaunt, rugged strength of the Oak. Some trees, perhaps, are as beautiful then as when clothed with summer verdure. The common Elm, bereft of its foliage and with every branch and twig standing out against a winter sky, is one of the most beautiful objects in nature.

There is, of course, in winter a scarcity of bright colour in the garden compared with other seasons; but it is not entirely absent. Even in November and December there are trees and shrubs that brighten the garden with their coloured bark and fruits. Although not abundant, the members of this class are not used so extensively as they might be.

## ORNAMENTAL WILLOWS, &amp;c.

Among Willows, for instance, there are the golden and red-barked varieties of *Salix vitellina*. These, though scarcely ever seen, are capable, when properly treated, of producing bright, warm effects that are especially charming from November to February. When allowed to grow naturally this Willow—known popularly as the Golden Osier—forms a graceful tree of large size. Its twigs have a golden or red tinge, according to the variety, but on fully grown trees these twigs are not large, and as it is, of course, the bark of the preceding summer's growth only that is coloured no very marked colour effect is produced. To obtain a really bright patch of colour it is necessary to plant these Willows in goodly sized groups and to prune them hard back every spring. By treating them in this way a great cluster of long, wand-like growths is made every year, the bark over the whole of which becomes a bright yellow or red as winter approaches. An effective group is produced by mixing the red and yellow barked varieties.

Another striking Willow is *Salix*

daphnoides. The young bark of this species is covered with a thick glaucous or vivid blue-white "bloom." *S. acutifolia* is similarly distinguished, although not quite so distinctly. Different from any of these Willows, too, is the variety of *S. triandra*, with purplish brown bark. To bring out fully the ornamental qualities of these Willows they should be treated as advised for *Salix vitellina*. All these Willows are especially charming near the edge of water. Not only are their moisture-loving propensities satisfied, but their beauty is doubled by reflection in the water.

Somewhat similar to the Willows in the character of their bark, but useful in being adapted for drier situations, are the Cornels (Cornus). The best of the genus in this connexion are *Cornus alba* and its variety *sibirica*. They produce bark which for one or two seasons remains a bright red during the time the branches are leafless. A group of *Cornus alba*, with *Chionodoxa Luciliae* or Winter Aconite planted thickly beneath, gives a very pleasing bit of colour early in the year. A yellow-barked form of *Cornus stolonifera*, known as *flaviramea*, deserves mention.

Several shrubs are notable for the particularly bright green of their bark. The forms of *Kerria japonica* and *Neillia* are very bright during the winter on this account, but still more effective is a near ally—*Stephanandra Tanakæ*—a comparatively new shrub, also from Japan, but of little value in any other respect. Finally, I may mention the Rubuses with white stems. As in *Salix daphnoides*, the bark is covered with the waxy secretion known as "bloom," and of a blue-tinted white. Some six or seven species of Rubus have this character. Of those obtainable from nurseries, *R. biflorus*, a Himalayan species often to be had from dealers under the erroneous name of *Rubus leucodermis*, is the best. Dr. A. Henry has introduced a Chinese species—*Rubus lasiostylus*—which is even better than *biflorus*; the bloom is more distinctly blue and the stems sturdier and more self-supporting. The species is, however, an extremely rare one in

cultivation. It is scarcely necessary to repeat how essential it is that these Brambles and Cornels should be planted in bold groups.

Among trees the most noteworthy as regards the colour of their bark are the Birches. The beauty of the common white Birch has not been overlooked by planters. A single specimen or a few grouped together make a bright winter picture when associated with evergreens. The Canoe Birch of North America (*Betula papyrifera*) has a bark of an even purer white than our native species. The Yellow Birch (*B. lutea*) shows warm orange-brown tints on the more recently exposed surfaces of its bark. The bark of the River Birch (*B. nigra*) is not brightly coloured, being of a dull dark brown, but it gives the tree a notably curious aspect owing to the way it stands out from the trunk and branches in great ragged-looking flakes.

W. J. BEAN.

(To be continued.)

## WEeping HOLLIES.

VARIOUS forms of the common Holly (*Ilex Aquifolium*) are amongst the most valuable evergreens for garden decoration, and few things are more highly prized, especially in winter, than large specimen plants. The numerous forms vary considerably in character, not only in size and shape of leaf, but in habit of growth. Some with little or no pruning develop into free growing, upright trees, or are of dense, sturdy habit, making dwarf bushes rather than trees, others again assume a pendulous form. Of the latter type large plants are decidedly ornamental when isolated upon a lawn. As a rule the pendulous varieties are budded on tall stems of the type, and trained out in an umbrella-like fashion, so forming a hollow mound of greenery. In some places, notably in the Necropolis Cemetery at Brookwood, pendulous varieties have been allowed to grow without any attempt at training, and in a number of instances the results are good. Stout stems 10 feet to 12 feet high are surmounted by irregular



A WEeping HOLLY (*ILEX AQUIFOLIUM* VAR. *PENDULA*) IN THE ROYAL GARDENS, KEW.



heads, which droop down 6 feet or 7 feet, leaving several feet at the base of the stem bare. In the winter months these long pendulous branches smothered with bright red berries are very effective. The specimen illustrated is one of several growing in the Royal Gardens, Kew, and is named *I. Aquifolium* var. *pendula*. The leaves of this closely resemble those of the type, but there are other varieties available for persons who are fond of variegated leaves. Of this set *Argentea pendula* (Perry's Weeping) with silver variegated leaves, *aurea pendula* (Waterer's Weeping), with gold variegated leaves, and *pendula tricolor* are very distinct. To get height into these Weeping Hollies it is often necessary to tie up a few of the top shoots, otherwise they get out of shape by increasing more rapidly in width than height.

W. D.

## THE ROCK GARDEN IN AUGUST.

THE love for rock gardens has certainly increased among those who strive to keep their gardens interesting all the year round. Flowers in beds or borders, where a certain amount of formality is indispensable, are well enough in spring and early summer, but, unfortunately, all too soon their glory vanishes, and the gap between the seasons is most severely felt when the summer is on the wane, i.e., during the month of August. It is then that we appreciate most highly the fact that our garden also contains, perhaps, irregular borders, a wall garden, a rock and water garden, or other places where formality is absent, and where we can so arrange our plants that they are at their best when, perhaps, in an adjoining part of the garden flowers have already begun to fade.

As the end of August and the month of September are very suitable for planting, it may not be amiss to review briefly such flowers as are now (the middle of August) in bloom in various rock gardens, chiefly in the West of England.

### TRAILING PLANTS NOW IN FLOWER.

One of the prettiest things flowering this month is *Polygonum vacinifolium*. Its pendent shoots and pink flowers are particularly graceful when hanging over bold ledges or projecting rocks. Not being an evergreen it should be associated with evergreen plants if possible. More rampant in its growth is *Convolvulus althæoides*, which is only just coming into bloom. The flowers are the size of a florin, of a beautiful bright rose colour, and the leaves are of a grey colour. This *Convolvulus* dies down in winter and comes up again in the spring: it should not be planted close to small alpine as it spreads very quickly, and is happiest when allowed to ramble over some shrub or other, which it will quickly cover.

The same might be said of *Lathyrus rotundifolius* and its white variety, which are suitable only for very bold rocks or for places where they can be allowed to run wild. Much neater are the prostrate *Gypsophila repens* and *Gypsophila prostrata*, whose tiny white flowers are produced in great abundance and are just now at their best.

### SMALL ROCK PLANTS IN BLOOM.

Owing to the backward season the number of plants still in bloom is exceptionally large, and I will, therefore, only mention the principal ones. *Hypericum nummularifolium*, with its small round leaves and bright yellow flowers, grows only a few inches high and prefers a half shady nook, while the creamy white *Polemonium confertum* mellitum, which is still in flower at Exeter, prefers a hot and sunny position. *Acomathea cruenta*, with red flowers the size of a sixpenny piece, is a bulbous plant, which when once planted will last for years. *Ethionema diostrophis*, with its heads of handsome purplish rose flowers, is past its best, but still carries several blossoms; it loves a sunny

prettiest of that genus; it has not yet finished blooming, and its peculiar spikes of bracts and bright purple flowers, as well as its somewhat glaucous ovate leaves, make it an interesting object in the rock garden. Its height here is about 9 inches. About the same height is *Enothera eximia*, a North American plant, known also as *Enothera caespitosa*. It has very large white flowers 3 inches or more across, shaded with pink.

Among other small kinds of rock plants now in bloom I may mention the beautiful *Androsace lanuginosa* and its variety *A. l. oculata*, the bright rose *Silene Schafta*, the yellow *Inula ensifolia*, *Hypericum olympicum*, *Scutellaria alpina*, with its white and purple flowers, *Campanula carpatica*, *C. c. alba*, *C. pumila*, *C. portenschlagiana*, *Acantholimon venustum*, and various *Opuntias*.

### MEDIUM-SIZED PLANTS NOW FLOWERING.

Among newly-introduced plants of medium size, i.e., between 1 foot and 2 feet or so in height, few can rival *Dianthus Emilie Parée* (see illustration), which is now in full bloom; it is 18 inches high, very floriferous, and has flowers of a delicate pink, which are sweetly scented and last a very long time. A handsome companion to this, and flowering at the same time, is the fine new variety of *Scabiosa caucasica*, known as *S. c. magnifica*, with large, deep blue flowers, excellent for cutting. The fine pure white variety of *Scabiosa caucasica* is now also at its best. *Enothera speciosa* (the white Evening Primrose) is very conspicuous, and perhaps more attractive still is its pink companion, known as *Enothera rosea*. *Teucrium purpureum*, with woolly leaves and bright purple flowers, forms a striking contrast to the deep yellow *Helium pumilum* and the blue *Platycodon grandiflorum* and its paler and dwarfier varieties known as *P. grandiflorum album*, *P. Mariesi*, and *P. Mariesi album* go well with the beautiful yellow *Linums*, viz., *Linum flavum* and *Linum arboreum*, which are just unfolding their petals. Very showy still are the bright dazzling flowers of carmine *Dianthus Atkinsoni* and the deep yellow *Coreopsis senifolia* and *Coreopsis lanceolata*.

### WATER AND WATERSIDE.

In most water gardens *Nymphaeas* will now be in all their glory, looking better, in fact, than during early summer, when the leaves and flowers would scarcely be developed; and, as among the latest introductions among choice Water Lilies we have much variety, there should be no excuse for lack of colour this month. I need not name the enormous number of varieties of Water Lilies here, since



DIANTHUS EMILIE PARÉE (A GOOD PLANT FOR THE ROCK GARDEN, NOW IN FLOWER).

place. A little gem with prickly leaves and bright yellow flowers is *Erysimum kotschyannum*. It is only 3 inches high, and while most *Erysimums* flower early in spring this is only just now opening. A pretty Labiate is *Micromeria croatica*, which is only 6 inches high, and has bright purple flowers and small Thyme-like opposite sessile leaves. Of quite a different type is *Erodium Reichardi*, with its pretty white flowers close to the ground, and owing to its spreading growth it forms an excellent carpeting plant for a half shady position. According to the botanical authorities this plant should now be called *Erodium chamaedryoides*. *Origanum puicellum*, which is supposed to be a form of *Origanum Tournfortii*, is by far the

several articles specially devoted to that subject have appeared in THE GARDEN quite recently. A pretty little aquatic with bright golden-yellow flowers is *Valisneria nymphaeoides*, and among other water plants now blooming the large yellow *Ranunculus Lingua* deserves to be mentioned. A good plant for carpeting shaded ground by the waterside is *Houstonia serpyllifolia*, the sky-blue flowers of which are still showy. Among taller plants by the waterside now blooming are the bright crimson *Lythrum roseum superbum*, the white *Lysimachia clethroides*, the blue Poppy, *Meconopsis Wallichii* (which, by the way, requires a moist and shady nook), the tall white *Gentiana thibetica*, the tall scarlet *Chelone*



## ROCK SHRUBS NOW IN BLOOM.

As no rock garden is complete without some rock shrubs, I will name at least a few which have come under my notice. Many of the hardy Heaths are now at their best, and many are the different shades of colour to be obtained. Less well known are *Ononis rotundifolia* and *O. fruticosa*. The former is almost over; the latter has blossomed for nearly two months, and is still most attractive with its rosy flowers. *Cytisus Weldenii* is only just opening its bright golden yellow blossoms, and *Cytisus nigricans*, with its long yellow racemes, is still in full bloom, as are also the blue *Ceanothus Gloire de Versailles* and the pink form *Ceanothus Marie Simon*. *Senecio Greyii*, with yellow flowers and tomentose evergreen leaves, makes a capital rock shrub for a prominent position, and last, but not least, may be mentioned the following hardy Fuchsias, which are just opening: *Fuchsia Riccartonii*, *F. exoniensis*, *F. corallina*, *F. serratifolia multiflora*, *F. cordifolia*, *F. macrostemma*, and *F. globosa*.

## WORK 'IN THE ROCK GARDEN.

During this month this is limited practically to the gathering of seeds and cuttings of species it is desirable to propagate. Of watering there has been little need during the wet season we have just passed through. Seeds may be sown as soon as ripe, and cuttings under a hand-glass will, in most

cases, root out of doors and become established before the cold weather sets in.

F. W. MEYER.

Exeter, August 12.

## THE MOUNTAIN PRIMULAS.

(Continued from page 113.)

*PRIMULA PURPUREA* (Royle), syn. *P. nivalis* var. *purpurea* (Regel), *Stuartii* var. *purpurea* (Hook.), *macrophylla* (Don), *juschkeana* (Kern.). —

From the alpine and subalpine regions of the Himalayas and of Afghanistan. A very characteristic species, which I am surprised to see is included in *nivalis* by Pax, and by "Index Kewensis," for it is quite dissimilar in cultivation. THE GARDEN \* published a good coloured plate of it, which those who have it should con-

sult. It is a stout, strong-looking plant, with stiff upright leaves, slightly toothed—but often untoothed—dark green above and a bright white, generally yellowish below, long and narrow; flowers very dark purple, numerous, drooping because of the length of the pedicel, which, with the stem and the calyx, is entirely covered with white powder; corolla deeply cut; flower-stem stout, from 8 inches to 12 inches. This species is, unfortunately, difficult to grow, at any rate at Geneva. I have often received seed, collected in the Himalayas and coming direct; it germinated well and developed normally, but the seedlings decayed; one only survived and flowered, but we were unable to keep it.

*P. Reedii*.—From Kumaun in the Western Himalayas. It was found about twenty years ago by Dr. Duthie and described by him. This plant was distributed from the Botanic Garden of Saharunpur in 1886.† I saw it on August 17, 1893, at Mr. G. F. Wilson's at Weybridge, where it flowered for the first time in Europe, and was at once struck by its beauty and peculiarity. It is a low-growing plant, leaves ovate-lanceolate, with deeply-cut crenate lobes, narrowing to the petiole, covered all over with white silky hairs; scape erect and firm, 2 inches to 4 inches long; flowers two to three, fragrant, large, drooping; calyx broad, snowy white inside, teeth triangular, acute; corolla about 1 inch across, cream-coloured, quite white at

the base. Miss Wilson made a drawing of it, and I believe an engraving was published later, either in THE GARDEN or the *Gardeners' Chronicle*, but of this I have no note. It has never been in my possession, and I know nothing of its culture. Mr. Wilson had it in a cold frame. I remember his joy when I told him, one Sunday morning, that it was my first sight of the new *Primula* in flower. Dear old friend! He sees now, I trust,



PRIMULA EROSA (LIFE SIZE).

barbata, the white *Spiraea Filipendula*, and the glorious crimson *Spiraea palmata*.

## TALL PERENNIALS FOR THE BACK OF THE ROCK GARDEN.

A plant little known except in the extreme West of England is *Lobelia Cavanillesii* (also wrongly called *Tupa salicifolia*). It grows freely when once established, but in a young state requires protection during very cold winters. The tubular flowers are scarlet and yellow, and very showy at this time of the year. *Michauxia campanuloides* grows 4½ feet high, and its large white blossoms are still showy. Unfortunately, it must be considered a biennial. A most peculiar plant (2½ feet high) now blooming is *Plagius grandiflora*. It is a composite without ray florets, consisting, in fact, only of a huge semi-globular yellow disc 1 inch deep and 2 inches to 2½ inches across. *Dianthus Pancici* is also uncommon. It grows 2½ feet high, and bears numerous large heads of deep crimson flowers resembling those of *Dianthus cruentus*. Among other tall perennials are the purple *Liatris spicata*, the blue *Aconitum japonicum*, the pink *Physostegia virginica* and its white variety, the mauve *Galega officinalis*, the white Californian Tree Poppy (*Romneya Coulteri*), the blue Thistles (*Eryngium amethystinum* and *Echinops ruthenicus*), the white *Achillea The Pearl*, the yellow *Heliopsis scabra*, and the white and blue forms of *Pentstemon ovatus*.



PRIMULA PURPUREA.



more beautiful flowers than even those he loved so well on earth!

*P. Sieboldi* (Morr.), a Japanese garden plant syn. *P. cortusoides amurensis* (Lindl.), *cortusoides grandiflora* (Lem.).—A highly ornamental plant, very generally grown: leaves all radical, long-stalked, ovate, crenate-dentate, reticulated and softly downy; flowers bright purplish-crimson in the type, large with ovate lobes deeply cut and often laciniated. Flower-stem from 8 inches to 12 inches high, bearing six to twelve flowers. There are a large number of varieties and forms, many of which are fixed and have received names. Although this beautiful plant has never been found wild, it is, without doubt, a true species, and is rightly given specific rank in the "Index Kewensis." Its cup-shaped calyx, deeply lobed and indented, distinguish it clearly from *P. cortusoides*. It was introduced from Japan in 1862, and Pax thinks it likely that its origin should be looked for, not in Japan, but in Southern China, a land that, as is well known, has still many secrets awaiting the explorer. It is not easy to grow, doing badly in all calcareous ground, where the leaves soon turn yellow. It likes half shade, and dislikes damp, and should be in well-drained porous soil. This is all I can say of it, for I know no more.

*P. Stuartii* (Wall.).—From the Himalayas, Nepal, &c. Figured in *Bot. Mag.* t. 4356. A plant of tall habit and graceful form, somewhat recalling *P. purpurea*. Leaves smooth, 1 foot long, widely lanceolate, glabrous above, mealy beneath, edges crenulate, stem 12 inches to 20 inches high; flowers a fine golden-yellow, in a many-flowered umbel, large, drooping, thick-limbed. It flowers from May to July. It must have a deep and porous soil, peaty if possible, in half sun, no stagnant moisture, and a place sheltered from northerly winds.

*P. sufruticosa* (A. Gray).—From the alpine regions of the Sierra Nevada in California. A small tufted plant with nearly woody stems, twisting about on the ground like a small shrub; leaves narrow, cuneiform, spatulate, toothed at the end; flowers a fine purple-rose, arranged in umbels of three to seven, on a stalk 3 inches to 4 inches high. April and May. This species requires a well-sheltered place in rock work, a certain amount of sun, and a well-drained nook in firm stony soil.

*P. Wattii* (King).—From Chola-Natong in Sikkin. This species, sometimes known as *P. azurea* (though I doubt whether this name has been published), was described a few years ago.† I do not know it. I have just received some seed collected in the Himalayas and sent by a friend of our establishment; I hope that it will germinate safely, and that this plant, of which we hear great things, will soon be available for gardens.

It is in this division of plants needing special culture that all the new species described by Franchet, that were found in Yunnan twelve to fifteen years ago, must be placed. It is unfortunate that, as I have already said, the seed of these species, too old when received to germinate properly, all failed, and I believe I am right in saying that, excepting *P. Forbesii* and *P. Poissonii*, none of these beautiful Chinese species are in cultivation. I should be glad to be corrected if in this I am in error, and should be grateful to any of my readers who will give me information. This province of Yunnan, like all Southern China, contains wonders of vegetation, of which, as yet, we know but little; *Incarvillea Delavayi*, *Kohlrutaria bipinnata*, and *Paeonia lutea* are examples of its flora,

which holds many an unknown wonder and surprise in store. Now that China is open, it is for England, with her sea power and wide possessions, and her sons always pushing forward to explore and to civilise, to obtain for us these rich treasures, both for science and for our gardens.

Geneva.

H. CORREVON.

(To be continued.)

## THE FRUIT GARDEN. OUTDOOR FIGS.

AS an outdoor crop the Fig can be successfully cultivated in many parts of these islands, but its cultivation out of doors has not extended for certainly the past half century. Indeed, it is not too much to say that more practical and various efforts were made to cultivate it successfully in this way forty years ago than at the present time. The failures in its cultivation in this respect I believe are due to the want of knowledge as to the locality and position in which it will succeed than from any other cause. That it will succeed admirably even as a standard or an espalier on the coast of our southern counties is beyond a doubt, as witness the prolific Fig orchards of Worthing and other coastlands of Sussex, which have annually returned heavy and profitable crops for scores if not hundreds of years. The Fig is pre-eminently a fruit of the coastline, and it is useless to try and grow it any great distance inland, in consequence of the greater severity of the weather and the injury to the tree from frost, our occasional severe winters killing it to the ground. It is then to growers on our coastlands that we must look to for an increased growth of this fruit where the climate is mild and where immunity from severe frosts exists. That there are such positions in many parts of Great Britain besides Sussex goes without saying. I may instance the coast of North Wales, say from Flint to Bangor. I have on many occasions had the pleasure of visiting the beautiful gardens of Lord Penrhyn at Penrhyn Castle, Bangor, where every department of the garden is so successfully represented by the labours of his lordship's veteran and highly respected head gardener, Mr. Walter Speed, V.M.H. Among the many fruits under his care I may say for myself that there are none more appreciated than are the splendid crops of Figs which he annually secures from his Fig trees on the open walls. I remember also as a boy how well the Fig was fruited on outside walls at Bodorgan, Anglesea; the position of the garden was less than a quarter of a mile from the sea shore. Let us hope that through the instrumentality and advocacy of THE GARDEN a new impetus may be given to the growth of this delicious fruit by the many able gardeners of our coastlands. There is no fruit more welcome on the dessert table than a well-grown ripe Fig, and few command a better price in the market.

Where grown against a wall a position facing south or south-west should be given. Ample drainage must be provided for the border, which should not be more than 2½ feet deep, and which at first when the tree is planted should be of limited extent. The soil in which it is planted should not be over-rich, and should consist of sound friable loam three parts and one part made up of lime rubble, broken bricks, and road scrapings, with a bag of quarter-inch bones to a cartload of soil, as well as a good sprinkling of lime. It is a wise precaution to take to build a temporary wall (say 4 feet from the wall against which the tree is planted) as high as the border so as to confine the roots of the tree into this limited space for a few years in order to check luxuriance of growth and to promote early fruitfulness.

At the time of planting the border should be made as firm as possible, and in the course of four or five years' time this temporary wall may be removed and the roots given greater space to

enable the tree to further develop itself and to sustain the heavier crops of fruit which it will now carry. If the ordinary soil of the garden is good all it will be necessary to do in extending the border will be to trench the added part, adding at the same time a liberal sprinkling of quarter-inch bones and of the other ingredients recommended above. Taking it for granted that the drainage is effective, the object of the cultivator should be to secure short jointed, well-ripened growth during the summer, as on the success or failure in accomplishing this depends success or failure as regards securing a good crop the ensuing season. It is these shoots which produce the fruit. The current year's growth will also produce fruit, but too late to ripen out of doors in our climate.

Although rich soil is not recommended for the growth of the Fig, once a good crop is secured mulching of rich short manure should be placed over the roots, and in hot weather, whilst the fruit is swelling, liberal waterings of diluted manure water from the farmyard should be applied every ten days or a fortnight until the fruit approaches maturity, when it must be withheld until it is gathered. After this a good soaking of manure water should be given and little or no further watering will be needed during the remaining part of the season.

What pruning is necessary should be carried out at this time, and will consist in cutting out branches where they overlap or are too thick, leaving only enough to furnish the tree all over with bearing wood for next year's crop. By thinning out the shoots thus early advantage is secured of the sun's heat and light in consolidating the sappy growth and in plumping up the buds ready for a good crop the following season. When the leaves fall in the autumn many half-formed fruits will be found on the current season's growth: these will come to nothing, and had better be taken off.

### WINTER PRUNING AND PROTECTION.

If pruning has been carried out as recommended above there will be little or no winter pruning to do. Still, the trees must be looked over and the growths properly regulated and superfluous shoots cut away. This should be deferred until the end of March, as the tree being tender cut shoots are more subject to damage by frost. The fan form of training is the best.

Success or failure depends perhaps more on the way in which this item of work is carried out than on any other detail of culture. There are many different ways in which this can be done, some untying the branches and roping them round with ropes of hay or straw. The objection to this plan is the length of time the branches are excluded from light and air, which must prejudicially affect the trees, and the same objection applies more or less to mats permanently fixed over them. The best way, in my opinion, is to bed the roots well down with a layer of Bracken Fern or dry leaves 1 foot deep and carrying them well up the stem of the tree and then to have wattled hurdles of straw or Bracken Fern strongly made long enough to reach from the border to the ridge of the wall, and wide enough for a man to be able to hand them about easily, say 4 feet. These can be made to fit tight together and be an effective protection against the most severe frost, but the great advantage in favour of these hurdles is the fact that they are portable. They can easily be removed and lapped over one another in warm and bright weather to the great advantage of the trees, exposing them to light and air and as easily returned into position on frosty nights.

OWEN THOMAS.

### HARDY FRUITS IN SEASON.

THE Strawberry crop was later than usual this year, but on the whole was good. We commenced gathering quite a fortnight later from plants grown for an early supply, and the last dish was taken on the 8th inst., the variety being Eleanor, which is our latest Strawberry. From the third week in June till the second in August is a fairly long season, but it should be added that our earliest bloom was protected in May, and we have plants

\* THE GARDEN, May 14, 1887.

† Report of the Saharunpur Botanic Garden, 1885-86.

‡ Journal of the Linn. Soc., XX., page 10, t. XIV. A.



on south, east, and north borders to extend the season as long as possible. The new variety Trafalgar is a splendid mid-season fruit, and those who need quantities will find it reliable. I never knew a worse season for

#### BLACK CURRANTS;

the crop was a very poor one. Red Currants were good; but Gooseberries thin owing to the spring frosts. More importance is attached to such crops as the early Peaches and Nectarines, and these like other fruits are much later. I have often gathered Early Rivers' Nectarine from a protected south wall the last week in July, but the fruits are quite three weeks later this year. I recently gave the new Cardinal Nectarine a trial on a wall facing south-west, but the result is not satisfactory. I know that when sent out this variety was recommended for forcing. It would be interesting to readers of THE GARDEN to know if this variety succeeds further south; here the tree grows freely, but there was no fruit.

#### PÉACHES

are now useful and ripening freely. Our first dish from the open wall was gathered on the 2nd inst., the variety on a south wall being Amsden June. Waterloo succeeds Amsden June quickly, but we grow both, for should one fail the other often succeeds. It often happens that one may gather these varieties from walls in the open when the late kinds under glass are not ready. These early American varieties must have liberal culture and not be allowed to carry too much fruit. A Peach well worth room in all gardens to follow Hale's Early is Condor; with us it never fails to crop, and is a beautiful colour. I noticed last year and several previous seasons we had this variety ripe the third week in August; it is much later this year. Early York was not equal in quality or crop to Hale's Early, and Early Beatrice I consider small and poor compared to Amsden June and Waterloo. The

#### BEST EARLY PLUM

is Stint; it is one of the late Mr. Rivers' seedlings, and most valuable for early supplies. I do not like the name, but I am ignorant as to its meaning. Stint is a small reddish fruit, of very good quality, juicy, and the tree is a good grower. The fruit was ripe this season on the 2nd inst. from trees on a west wall. I formerly grew this variety as a cordon, but do not advise this method, as it fruits much better when grown more naturally. Early Prolific this year is very scarce; there was a good promise early in the season, but the crop was an almost total failure. I should add that Early Favourite is in the same condition. Our

#### EARLIEST APPLE

for dessert is Mr. Gladstone; this was ready for use on the 7th inst. Most of the early dessert Apples are very scarce this season. Irish Peach is good, whereas Beauty of Bath is almost barren of fruit. Lady Sudeley is cropping fairly well; this variety is nearly always productive. We find the small but good Doyenné d'Été Pear invaluable for dessert at this season; though small it is good and very pretty and most productive. We have, unfortunately, very few Williams' Bon Chrétien this season. Clapp's Favourite is more plentiful, but not of such good quality. A favourite early Pear is Marguerite Marillat; this is very fine early in September, and with us a better cropper than Souvenir du Congrès. I noticed in the northern part of the country that hardy fruit crops are much heavier, no doubt this was owing to their being in flower during better weather. The season as regards early fruits will, I fear, be poor in many places.

#### EARLY PEAR DOYENNE D'ÉTE.

This small, handsome Pear is of great value at this time of year, when so few others are ready for use. I have seen few early Pears bear better

than this variety. When grown as a cordon it rarely fails to crop, and grows rather larger, too. With us Doyenné d'Été is preferred to the newer St. Swithin; the latter is a little earlier, but lacks the flavour of the first-named. I am aware many object to the small size, but I think for dessert it should not be found fault with on this score. I have referred to its appearance, and it certainly is a very pretty fruit, its bright colour and perfect shape being much liked. With early fruits one does not expect the very best quality, and this Pear to do it justice should be gathered a few days before it is quite ripe. It is then of quite a refreshing flavour and really good quality. It does well grown in any form, and makes a compact pyramid; it also succeeds as a standard, cropping very freely, and rarely fails even in adverse seasons.

G. WYTHES.

#### THE EARLIEST STRAWBERRIES.

The earliest dishes of Strawberries are always

## WORKERS AMONGST THE FLOWERS.

REV. F. R. BURNSIDE.

TO rosarians the world over the name of the Rev. F. R. Burnside, the rector of Great Stambridge, near Rochford, Essex, is familiar. His skill as an exhibitor of Tea Roses, and his earnest endeavours to encourage Rose growing wherever he has been placed, have done much to help beginners in the culture of the flower for show.

It was through his enthusiasm that the Southend Rose Show was started, and the first exhibition held there recently promises well for the future, and in his own parish he tries to interest his parishioners in gardening and make them love the flowers of garden and hedgerow about them. Those dwelling in parishes worked on these simple and beautiful lines have reason to thank their clergy, for in this way are homes made happy and prosperous. We cannot do better than publish the remarks of the Rev. H. D'ombrain about Mr. Burnside in the "Rosarian's Year Book" for 1901, in which a portrait appeared of this excellent rosarian.

"It was in the disastrous year of 1879 that I first made the acquaintance of this enthusiastic and genial rosarian. He was then living in the pleasant Kentish village of Farningham (his native village), a village dear to all anglers, for the river Darent on which it is situated was the favourite resort of many metropolitan piscatorial clubs. Mr. Burnside was not then in orders, and his garden was a small one, but he managed to grow some fine Roses; and to give an earnest of what might be expected of him, he got up an exhibition; but, alas! the day was a pouring wet one, and the place where the tent was fixed was a meadow with long grass. Under these circumstances it was not to be wondered at that the exhibition was a failure, and it said a good deal for the pluck and energy of Mr. Burnside that he determined to have a second one, but the wet weather continued, and one might readily have concluded that there would be an end to Rose exhibiting in Farningham; but no! the seed sown had borne fruit, and up to the present date annual exhibitions have been held there.

"My next intercourse with Mr. Burnside was at the quaint and pleasant Cotswold village, Chipping Campden, his first curacy. In 1888 he accepted the very small living of Much Birch, about six miles from Hereford, and here he was first enabled to show what he could do in the way of growing Tea Roses. The ground was high—about 400 feet above sea level—and here he grew such plants of Marie Van Houtte, Anna Olivier, Innocente de Pirola, Rubens, and other Roses as I have rarely seen equalled. Mr. Burnside has always maintained that Tea Roses do best at a considerable altitude above sea level, and many rosarians remember the delightful day they spent at the Hereford Rose Show, and afterwards sharing his hospitality at his very pleasant vicarage. Domestic circumstances, however, compelled him to resign Birch, and he went to a curacy near Derby, where he met with an unfortunate bicycle accident and was laid by for a long time. I did not see him at Derby, and was glad to find that after a short time he had come down to my



THE REV. F. R. BURNSIDE.

welcome provided they are good, and to obtain them it is necessary to plant specially for that purpose. I would advise planting in July if possible.

I am aware it is not always practicable, but much is gained by early planting and securing a good growth before winter. It is useless to take layers from plants that have fruited, as the runners are so much later; far better reserve a few plants for supplying layers. This season the fruit from plants grown specially for first supplies from the open ground obtained double the price of forced fruits grown earlier under glass, the variety being Royal Sovereign. Even at this late season I would advise more attention to early planting in a rich root-run deeply dug, and each plant made firm. Plants treated thus will throw up very strong spikes of bloom, and these will produce fine fruit much earlier than from older plants. Do not leave the plants after the second season—the first year for size and earliness, the second for quantity.

S. M.



own county and had accepted the curacy in the beautifully-situated little village of St. Margaret-at-Cliffe, near Dover, overlooking the English Channel and exposed to every wind that blew. But here his undoubted skill as a grower of Tea Roses was brought to bear, and although his plants were few in number he ventured to enter at the Crystal Palace in 1900 for the Tea Challenge Trophy. Here he had as competitors Mr. Alexander Hill Gray, the Rev. A. Foster Melliar, Mr. O. G. Orpen, and Mr. Conway Jones. Mr. Alexander Hill Gray's large collection of Tea Roses at Beaulieu, Bath, was brought into competition with Mr. Burnside's small one at St. Margaret-at-Cliffe, where he grew only 290 Roses, most of them half-standards, and yet so close was the contest between him and Mr. Hill Gray that the judges were more than half an hour in deciding to whom the prize should be given. And here I may as well say that the establishment of the Challenge Trophy for Teas was due to Mr. Burnside's

very neat in the arrangement of his boxes. He and I have been friends for upwards of twenty years.'

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### GRAFTING TREE PÆONIES

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Various letters have appeared from time to time on the grafting of the Tree Pæony by the Japanese, and I note Mr. Barr's communication on the subject in THE GARDEN of the 9th inst. With regard to the nuisance caused by the suckers of grafted plants, it seems to me that Mr. Barr's suggested remedy (grafting low down) will not serve its purpose, as the stock employed is so vigorous and prolific of suckers that it is almost impossible to keep them in check. I have had a

good deal to do with these Tree Pæonies from Japan, many of which are grafted as low as possible, but my experience is that even if the scions root the suckers are pushed up as freely as from the others, and it is almost impossible to eradicate them. Take a plant as imported with good roots, and you will find a score or more of latent buds thereon, which are only awaiting the return of spring to push forth vigorously. Cut these away, others will in due time make their appearance, and these cannot be properly removed unless the plant is dug up. The only remedy that I can see is to propagate by layers, which would, as Mr. Barr points out, be very awkward in the case of many plants, while the process of increase, being much slower, these Pæonies would be naturally dearer, and, though preferred by many, it is questionable if, from an *à s. d.* point of view, they could compete with the grafted ones. Such being the case, it is more than probable that we shall go on grumbling, yet buying grafted plants of Pæonies, Rose Acacia, Prunus triloba, and many other things that would all be better on their own roots. T.

### FERN BALLS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I beg to send you herewith a photograph showing a Fern ball made of "Davallia bullata." These Fern balls have in later years been exported in large quantities to America, and I hear that the article has also been taken up in England.

It is without doubt a very beautiful ornament for the house, verandah, or any place in the garden where there is shade. The structure, so to speak, is made of sphagnum moss, upon which the Fern roots are closely tied. The string used for tying is made of Chamærops fibre, which has the advantage that it does not rot for a number of years. The culture is the easiest possible. In spring they are dipped in water and hung up anywhere in the shade, after that they must be regularly syringed

or dipped, and after a short time the young fronds appear and form a regular Fern ball. In autumn the leaves will begin to turn yellow; this is a natural sign that their vegetation period has ended and the supply of water should be stopped; they will lose all their leaves and must be allowed to dry off perfectly, and are kept during the winter in a dry place free from frost.

The next spring the same process is repeated, when the growth of the Fern fronds will be even better than in the first season. So treated these Fern balls can be kept for four or five years until the moss and string begin to rot.

As said before, they have been eagerly taken up by the American public, and my firm has orders in this year for over 100,000. It is of great importance for the commercial value that they travel with perfect safety and that their culture is the easiest, and at last that they are very cheap.

Besides these Fern balls, we are making some other designs, of which I am also sending you a photograph. The upper long design, reproducing my firm's name, this is now with the fronds all out rather indistinct. A very beautiful design are the little temples, and in America the Monkey design is very highly appreciated.

Yokohama, Japan.

ALFRED UNOER.

### SYMPHYANDRA HOFMANNI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In THE GARDEN of the 9th inst. you have a note referring to this Campanula-like plant as sent by Messrs. Veitch, of Exeter. You also ask for some information about its culture and requirements. As I have grown it here for several years my experience may be useful to those further north than Exeter, where some things thrive which are not so satisfactory in the North. Here it is practically a biennial, but it sows itself so freely that one need never trouble to make a sowing for one's self except the first. In some seasons, indeed, it increases too rapidly in this way, and must be well thinned. Plants raised in summer or early autumn will flower the following year. From what I have seen of it, I believe that it prefers a rather cool position to enable it to assume its full beauty, though it will also grow among stones and among the crevices of rockwork. It has done remarkably well this sunless season, and I have never before had such good plants. I have met with it once or twice as *S. Kaufmanni*—evidently a nurseryman's blunder, as there is no plant recognised by that name. S. ARNOTT.

Carsethorn, by Dumfries, N.B.

### NOTES FROM SCOTLAND.

#### SWEET WILLIAMS.

We have several forms of these delightful old-fashioned flowers blooming at present, some of them marked in a manner that the more exacting florist would reckon hideous, but they are very pretty as common flowers nevertheless. The more perfect kinds, now termed *Auricula*-eyed, have a coloured ring marking off a white edge from a white centre. These are very beautiful, and are not a little varied. I have several masses of these in mixed borders, where they have gone on increasing in size during the past three years. They are not at all novel, a drawing by Sydenham Edwards in "A Dictionary of Practical Gardening, 1807," showing they were common at that date, when, and long previously, they were called "Painted Ladies." The most brilliant of the family, however, is the Dwarf Double Crimson, which the late Mr. Thomas Ware distributed over thirty years ago as "magnificens." It is, unfortunately, difficult to preserve where the soil is naturally dry, large clumps dying without any apparent cause. It is quite easy to increase, however, either by letting the spreading stems into the soil or by covering them with a little light material. September is the best time to break off the pieces rooted.

#### WHITE CARNATIONS.

Trojan is a most robust variety of good upright habit, but its flowers are scarcely so fine as those of



A FERN BALL.

exertions. He won it the first year, and I have no doubt that if he had continued at Birch he would frequently have carried it off. Mr. Burnside is a Carthusian, and the living of Great Stambidge, near Rochford, in Essex, is in the gift of Charter House, and, having fallen vacant, he became a candidate for it, and he was elected to it in the early part of last year. There is a large garden attached to the rectory giving ample room for the growth of his favourites. It is not elevated, and therefore does not answer to his idea as to what a Tea Rose garden ought to be, but I have not the slightest doubt that he will overcome this disadvantage, and that we shall see him victorious there as he has been elsewhere. Mr. Burnside is so well known in the Rose world that there is very little need for me to say such concerning him. He is young and energetic, and his pleasant smile and cheery laugh help to make him welcome wherever he is. He is an excellent setter-up of Roses, and



Hildegarde, a remarkably beautiful variety, the white marvellously pure. It also possesses that stout upright habit of growth that is so essential in a Carnation for planting in borders. I have also a good white, very free blooming, sent me from Carton, but the flowers droop somewhat. It is named Carton White. The hardiest white is Lothian Lassie. The bloom is rather small and the white dull, but it is on account of its good habit and late flowering well adapted for border planting.

#### THE SEASON.

The cold and lack of sunshine combined have contributed to produce a thoroughly bad gardening year, inside crops as well as those growing in the open being alike affected. Tomatoes, for example, which have been a drug in the Scotch markets for the past two or three years, have this year, through scarcity, realised high prices. Strawberries also have all along been much above normal prices, and in private gardens there has been a difficulty in supplying the usual requirements. The more tender vegetables, such as French Beans, Runners, and Marrows have been, to a great extent, failures. They have absolutely refused to grow. In flower gardens all the more tender subjects have been unable to make growth, and not a few have died out of the ground. It is, naturally too, a very late season, and without a doubt late flowering hardy plants that have been depended on for years will this season fail to flower at all.

R. P. B.

## THE INDOOR GARDEN.

### A TREE SAXIFRAGE

(*CUNONIA CAPENSIS*).

AT the Cape and elsewhere in South Africa some of the Saxifrages, which in Europe are mostly dwarf habited or creeping fleshy evergreens, there become stout hardwooded shrubs or even fair-sized trees. *Cunonia* and *Greyia* are well known examples, both occasionally seen in botanical and other gardens. John Christian Cuno, after whom our present plant was named, had a garden at Amsterdam, of which he gave a curious poetical account in or about the year 1750. *Cunonia capensis* grows 15 feet to 50 feet in height, and was introduced from the Cape about 1816. Its twin spikes of feathery white flowers are 5 inches or 6 inches long, and very pretty as seen in contrast with the dark and glossy pinnate leaves. Our illustration is from a photograph taken by Mr. George E. Low on Christmas Eve in the Trinity College Botanical Gardens at Dublin, and shows the tops of a flowering shoot about half its natural size. The plant may be increased by layers or cuttings, although the last-named are slow in rooting, and it grows well in a cool greenhouse. In Wicklow or Kerry, or in Devon and Cornwall, this distinct plant would most likely prove to be quite hardy in sheltered and half-shady places. From a botanical point of view the plant is remarkable for its large interpetiolar stipules, but it is quite handsome enough in growth and flower for cultivation in greenhouse or conservatory.

#### LACHENALIAS.

THESE pretty South African bulbous plants are well worthy of extended cultivation, especially by people whose glass house accommodation is limited,



*CUNONIA CAPENSIS* IN THE TRINITY COLLEGE GARDENS, DUBLIN (HALF NATURAL SIZE).

for I know of no valuable flowering plant that is easier to grow. At no time is much warmth necessary, in fact much fire-heat is harmful to them, and therefore it will be readily understood that no forcing must be resorted to. If they are required to flower at an early date the bulbs must be potted up early. The second week in August is a good time to pot up the main batch, using clean pots 5 inches in diameter. The compost I find to suit the bulbs admirably consists of equal parts of good loam, leaf-soil, and well-decomposed manure, with a liberal addition of sharp sand or road grit. The bulbs should be shaken out of the old soil, and be graded, repotted, placing six of the finest bulbs in a pot; the smaller bulbs may be placed rather closer together in pots or pans for increasing the stock. These will not flower for two years. The draining of the pots should be given special attention, for when well filled with healthy roots copious supplies of water are necessary. The bulbs should be almost covered. A cold frame on a bed of ashes is a good position until severe frosts take place. The plants should, however, be removed to an airy greenhouse from which frost is excluded. Let the lights remain over them in order to throw off rain and encourage the formation of new roots. But little water will be necessary until growth commences. It is a good practice to afford a good watering to settle the soil, and afterwards to keep up sufficient humidity in the frame to start them into growth by syringing twice daily, and shading with a light material during hot days. Give abundance of air when the weather is favourable, and keep the plants as near the roof-glass as possible. There are some thirty different *Lachenalias*, but several are very similar, therefore I would only advise growing such distinct roots as *L. tricolor*, *L. tricolor aurea*, and *L. Nelsoni*.

H. T. MARTIN.

#### NOTES FROM SWANSWICK.

It is a pity all tastes do not coincide, for, were this the happy case, everybody would be satisfied with the novelties bought on the strength of paper praise. As it is, when new plants fail to meet one's expectation, I suppose it should be comforting to reflect that one's neighbour might very probably regard them with rapture. On this text I hang the new striped Ivy-leaved Geranium Mrs. H. J. Jones and the zonal Cactus Fire Dragon. To me

the former's deep crimson stripes or flakes, striking inwards from the edges of the petals, make the flower look ragged—only, of course, as an optical effect—while the Cactus is remarkably like a malformed semi-double. Possibly they will both grow on my affections later on as they increase in size and amount of flower. Up to the present this has been a poor year for all Geraniums in this neighbourhood; they could not be bedded out until very late on account of the cold, and then came the blazing heat and dried up all their poor leaves and roots, which always seem to get less good out of water (more or less hard) than most plants. Perhaps this is a judgment, righteously severe, on people who are not modern enough to despise them, but for those who enjoy strong colour there will never be anything, herbaceous or otherwise, much better than a bed or two of good pink and crimson zonals, and I should be very sorry to pass a year without them.

I have not had an opportunity of being disappointed or otherwise affected by the blooming of another novelty, sordidly but graphically known to us as the "Seven-and-sixpenny Pea." This is the new white everlasting *Lathyrus latifolius grandiflorus*, sent out by Hobbies, Limited. My plant, for some inexplicable reason, refuses to progress in the slightest. It is said to be a very robust thing and highly floriferous, altogether a great advance on the ordinary forms, but if my specimen is robust its strength must be in its roots. It has had plenty of attention, and yet lags far behind others planted at the same time. However, I once before had something of the same experience with *Lathyrus Pink Beauty*, which dawdled and dwindled miserably through one season and came up vigorously enough the next, so that it may be a peculiarity with highly-bred stock of this family.

The strong soil here suits Phloxes, and they are remarkably fine this year as regards growth and size of flower; but, again, they have come too early. These periods of dry heat in June and July, which have been repeated now for the last three years, rush perennials on sadly, the consequence being that the end of August



sees the end of ever so many things that ought to be still going strongly in September.

I am growing a few Fuchsias—because we happened to have them and there was no other subject handy—for the adornment of a very hot, unshaded glass passage or gallery, where the sun has full opportunity of doing mischief. Strange to say, these plants, which did so well in several former years in a perfectly shady bed, do not seem to suffer in the very least from the glaring heat. They are, of course, kept carefully watered, and have liquid manure every other day, so that as far as their roots go they are all right. The leaves, however, and the very abundant flowers might be expected to flag and scorch and scald, but they do not.

A tribute to our own compatriot providers, and, at the same time, a left-handed compliment to the foreigner, is not to be resisted; therefore I must place on record a Carnation experience, very small, but straws show how the wind blows. I bought two packets of the "very best" Carnation seed—one from Germany, the other, a good deal later, from Sutton's. There was about the same quantity of seed in each, and, if anything, the packet from the sausage-land had a better chance, as it was sown while the greenhouse was warm; whereas, when the Sutton packet was committed to precisely similar conditions, the heating apparatus was not in use. Two plants, and two only, appeared in the German box; every single English seed must have germinated, for I pricked out over three dozen a few days ago. Of course, it is still possible that the two Fatherlanders may be two magnificent novelties, while the Britishers may be all single, and if this does occur I shall have to apologise. But, so far as it goes, the deal argues for Protection. M. L. WILLIAMS.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### WINTER FLOWERING BEGONIAS.

**B**EGONIAS are now growing fast and should be well supplied with liquid manure. Plants of Begonia Gloire de Lorraine should be staked, the leading growth being tied and the side growths allowed to hang loosely. The new Turnford Hall variety appears to be a stronger grower than even the foregoing—this, at least, is my experience. Nothing is more fatal to the production of stout well-matured growth that will bear an abundance of flower than cold frame treatment. Therefore, maintain a warm temperature with an abundance of moisture in the atmosphere. Do not pinch the growths but remove all flowers until the plants are required to bloom. Keep them near the glass and avoid overshadowing.

#### POINSETTIAS.

These should be placed well apart, as the best bracts are obtained from strong well-ripened growth. If the pots are well filled with healthy roots weak liquid manure should be given them twice weekly. Very little shading will be required now. These plants should only be shaded from the hottest sun when young.

#### PALMS.

Work will now be reduced indoors, and advantage should be taken to have these plants thoroughly overhauled. They should be sponged over and given a liberal top-dressing. Turfy loam with plenty of coarse sand and charcoal with a little Clay's fertiliser forms a good compost. This should be made firm, afterwards a good watering should be given. Manure water is of great

assistance to Palms, provided the drainage is good and the pots full of healthy roots.

#### ASTERS FOR INDOOR DECORATION

should now be lifted from the borders, but preparatory to this they should be given a good soaking of water. After potting place the plants in a cold frame or under a north wall, shade, and keep close and freely syringe until re-established. The single varieties are best for pots.

#### HUMEAS.

Another sowing should be made as advised last month. Pot on seedlings as they become ready, using a porous soil, and give plenty of drainage. The old plants in flower are now ripening seed, and should be fully exposed to the sun. Home-grown seed germinates freely and is reliable. Plants that are not required for seed may be cut down and stripped of their leaves and dried for winter decoration.

Few plants bloom more continuously or are more ornamental in winter when in full flower than Abutilons. Expose these freely to light and let the ventilating of the frames be liberal. Judicious feeding must be resorted to when the pots are full of roots. JOHN FLEMING.

*Wexham Park Gardens, Slough.*

### THE KITCHEN GARDEN.

THE welcome showers we have been having of late have done much to improve the appearance of the crops generally, and it has also been an ideal time for getting in and raising seeds which have to be sown at this season. It has also been favourable to the growth of weeds, necessitating the constant use of the hoe. Weeds should not be allowed at any time to seed in or near the kitchen garden.

Cabbage is probably the most useful of all our vegetables, as there is hardly a day in the whole year when this cannot be had if a judicious system of cultivation is practised, and at this season it should receive thoughtful attention. Continue to plant out Coleworts on any vacant plot of ground, as these are certain to come in useful and are of much more delicate flavour than greens taken from old Cabbage stumps, and the later the plantings, within reason, the more likely are they to withstand severe weather. Make another sowing of Cabbage seed for spring use, choosing a southern aspect.

#### LETTUCE.

Plant out the young seedlings when large enough in warm parts of the garden; these will prove very useful and last a considerable time during the autumn. Make yet another sowing. Endive should be treated likewise, and sow both Batavian and curled varieties.

#### CAULIFLOWERS.

Keep a sharp look out for caterpillars or they will spoil the appearance of the flower. The leaves should either be tied up or broken over them so as to keep them as white as possible. Veitch's Autumn Giant is one of the most useful. Late plantations should have the ground kept constantly stirred about them and well watered in dry weather, and after the plants have made a good growth mulch between them with long stable litter.

#### SPINACH.

Thin out young plants to a distance of 3 inches or 4 inches, hoe frequently, dust with soot in the early morning, and if the ground is in a poor condition apply small quantities of patent vegetable manure in showery weather. Make another good sowing about the 20th on deeply dug and well-manured ground. Give a good surface dressing of burnt garden refuse and make the ground moderately firm.

Continue to thin out young Turnip plants as soon as ready, dust with soot, lime, and wood ashes, and make two or three further sowings of the variety Snowball on various sites in the garden.

#### WINTER ONIONS.

Make one more sowing of these on a southern aspect; they will come in useful for pulling in a

green state for salads through the winter, and should a severe winter be in store this sowing will stand better than the earlier ones.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### THE FRUIT GARDEN.

#### PEACHES AND NECTARINES.

TREES in successional houses, after their fruit is gathered, must have their borders kept moist throughout, as dryness at the roots would cause premature defoliation. The foliage should also be kept clean by syringing, and the atmosphere as cool as possible by ventilating the structures to their fullest extent. Remove all the wood that has carried fruit and is not required to furnish the trees, and shorten strong growths that have immature ends to sound triple buds, while those that are sturdy and properly exposed to light may with advantage be left their entire length. Trees that are unsatisfactory—owing to having made exuberant growths through their roots having penetrated deeply in their borders, or, on the other hand, weak from their soil being exhausted—should, once their leaves are on the point of commencing to fall, have their roots to within a few feet (more or less according to their age) of their stem carefully lifted. Replace them in layers near the surface in fresh compost, consisting of good loam, mixed with crushed mortar rubble, wood ashes, and a dash of bone-meal. Trees treated in this manner should be kept rather close, and syringed several times a day until the roots begin to move, which can be ascertained by the state of the foliage.

#### LATE HOUSES.

It is particularly essential that the trees in late houses have their shoots properly thinned, and the unduly robust ones shortened and kept free of laterals, so that next year's bearing wood may have every opportunity by being adequately exposed to light and air of becoming thoroughly ripened. Keep the foliage clean by syringing, and the borders, while the fruit is swelling and until it approaches ripeness (particularly if the trees are heavily cropped), properly supplied with diluted liquid manures.

#### POT TREES.

The trees that have furnished an early supply of fruit, and have been placed outdoors upon a bed of ashes, should be repotted at an early date before they shed their leaves and while their roots are active. This should be attended to by preparing a compost similar to that recommended above for permanent trees and efficiently drained clean pots. When the trees are turned out of their pots the roots should be disentangled; at the same time cut back any long bare roots and preserve the fibrous ones. Replace the trees in pots that will admit of an inch or so of fresh compost, made quite firm by the aid of a rammer being placed around. When the potting is completed keep the foliage occasionally syringed, and place the trees for about a fortnight in a shaded position. The present time is suitable for selecting young trees for potting purposes, and these, if lifted from open quarters, should be placed in comparatively small pots, but time is saved by purchasing young established trees. The following varieties are suitable for pot culture:—Peaches: Hale's Early, Waterloo, Early Rivers', Bellegarde, Crimson Galande, and Dymond. Nectarines: Cardinal, Early Rivers', Lord Napier, Dryden, Stanwick Elruge, and Victoria.

#### CUCUMBERS.

Young plants for affording a winter supply of fruit must be planted out at an early date. Maintain a humid temperature, frequent syringing being needful in order to keep the foliage healthy and free of red spider. The ventilating of the house must at this season receive close attention, and additional dressings of compost, together with manurial liquids, be given to meet the plant's wants, stop the shoots regularly, and above all things be careful not to overcrop the plants.

T. COOMBER.

*The Hendre Gardens, Monmouth*



## NATURAL GARDENING IN SURREY WILDS.

A NOTEWORTHY EVENING PRIMROSE.

FOR several years past *Oenothera insignis* or *lamarckiana* has been grown in every part of the wild garden, and in every different aspect—full sun and complete shade—and in many places has been allowed to seed itself, the self-sown plants often forming large collections, and the seedlings thinned out in the spring and transplanted to other places. The borders now contain hundreds of plants in full flower, beginning to open in June, and continuing to flower freely till October in most years. With me they grow amongst many other things—annual and perennial—shrubs and Ferns, and flourish in very poor, sandy soil, which has not been manured, or even forked over, for ten years or more, and in some places is hard and very dry, down to the gravel on which it lies. Most of the *Oenotheras* are upwards of 5 feet high, with numerous branches, every one of which blooms freely. More than 500 flowers and flower-buds may be counted on one specimen, twelve or more flowers being open at the same time, as they succeed one another each evening until the cold nights and hard weather of late autumn stop further flowering, though many growing flower-buds still remain, which, in favourable weather, would have opened.

The seeds of the *Oenothera* are too numerous to estimate, and may be left to germinate and grow where they fall, or collected and sown in the spring. The plants look well grouped on any out-of-the-way patch of the poorest, driest ground, so arranged as to form collections of fifty or more. Of all easily grown flowers this *Oenothera* is one of the most accommodating. It can be grown as a small single plant of a foot high or less, or as a tall separate specimen measuring 6 feet or more, with large and often regularly arranged side branches, forming a beautiful plant by itself. So, too, with a little management as to the time of sowing and transplanting—plants, varying greatly as to height, may be arranged to succeed one another, series after series, over three or four months, and the flowers, when expanded, often measure 5 inches or more across.

July 28, 1902.

F. R. S.

## BOOKS.

**The Book of Vegetables.\***—Mr. George Wythes, who for many years has been known as a first-rate cultivator of vegetables, is responsible for the portion of this book that deals with the practical aspect of vegetable culture, and Mr. Harry Roberts adds an interesting editorial chapter upon the history and cookery of vegetables that cannot fail to be of value. The culture of vegetables savours but little of romance, but Mr. Wythes is to be congratulated upon the treatment of his subject, for he has so given valuable information that one can at a glance find out what one wishes to know. His remarks are rightly concise and to the point, for a practical gardening book loses its chief value if this is not the case. The vegetables generally cultivated in British gardens are treated of, and sufficient information is given about each to enable anyone to grow them successfully, and, as to their treatment in the kitchen, Mr. Roberts gives many recipes that are new to us.

**The Book of Orchids.†**—This is the eighth volume of "Handbooks of Practical

Gardening," and is from the pen of Mr. W. H. White, Orchid grower to Sir Trevor Lawrence, Bart. Few are better qualified to write about Orchids and their culture than Mr. White, and his remarks concerning them in the present volume are well worthy of perusal by those interested. One of the most important chapters of the book is that dealing with newly imported Orchids and the way to treat them upon arrival, and alone renders the book of value. Following general cultural details are given descriptions of the genera and most useful species of Orchids, and special notes with reference to their culture. Many are mentioned that are of little value from a purely horticultural point of view, though interesting enough to the collector. Such a book as this should tend to popularise Orchid culture, for the information is clearly given, and the author tries to show that Orchids are not so difficult to grow as was and now is to some extent supposed.

**The Book of the Strawberry.‡**—Mr. Edwin Beckett, Aldenham House Gardens, is the author of this, the ninth volume of the series of practical gardening handbooks. After an interesting introductory chapter concerning the history of the Strawberry, the author proceeds to give directions as to the outdoor culture of this fruit, and also how to produce early fruits by means of forcing under glass. The present volume is relieved from the monotony that characterises so many books on practical gardening by the inclusion of such chapters as those on Alpine Strawberries, Perpetual Strawberries, Strawberries as annuals, in barrels, &c., all of which make interesting reading. Extensive selections of varieties are given and market culture is also treated of. In addition to the Strawberry, the Raspberry, Blackberry, Loganberry, and Japanese Wineberry are referred to at some length. Mr. Beckett has certainly written pleasantly and well upon what is, it must be said, a most interesting subject.

## THE KITCHEN GARDEN.

### AUTUMN - SOWN CABBAGES.

IT is rapidly getting late for sowing Cabbage seed from which to obtain strong plants to stand the winter. Those who want such should sow at once, delaying not a day. When seed is sown late, although good growth may result, it is rare that the plants become stout enough to fit them for late autumn plantings. Generally a sowing made during the third week of this month gives strong plants to put out early in October, an excellent time to secure fairly early heads for cutting in the spring, although then so much depends on the nature of the variety. Sometimes even a later sowing gives fairly strong plants in October, but so much depends on the condition of the soil and the climate; still plants from a late sowing, if they have wintered well, come in very useful for planting out in the spring. There is a common opinion that the bolting off prematurely to seed by Cabbage plants is chiefly due to too early sowing and planting in the autumn.

That matter, however, I was enabled last spring to test, and with eighteen of the best varieties in a total of 700 plants of sowings made in July and August, and planted in September and October on the same plot of ground, whilst not a single one of the late sowing bolted. Only 3 per cent. of the other or earlier sowing bolted, so that early sowing has little to do with the defect. On the other hand the first sowing gave the earliest heads for cutting, so that there is some gain to counter-balance the few losses incidental to bolting. Still it is an undoubted fact that certain varieties or strains do bolt when sown in the autumn whilst admirably suited for spring sowing. No doubt these stocks have in them something of the comparatively annual character of the Coleworts, as plants of those always bolt to flower if autumn-sown. In purchasing Cabbage seed customers

should stipulate for varieties that can be guaranteed not to bolt to flower prematurely when sown in the autumn to furnish spring heads.

A. D.

## SOCIETIES.

### NEWBURY HORTICULTURAL SOCIETY.

THE fifty-fourth annual exhibition of this society was held on the 4th inst. in the charming grounds of Godwell Park, an ideal spot for a flower show, and a large number of persons attended. Our report must be brief, but such an excellent and well managed show would not be complete without referring to the good work of the chairman, committee, and secretaries, the good arrangements made, and what is so pleasing to horticulturists the good material staged. One exhibitor at this show stands out so prominently to call for special notice, this is the veteran Mr. Charles Ross, who secured over forty first and second prizes, and was the leader in all the large plant classes. He was ably assisted by his son.

The larger plant class was keenly contested. Mr. C. Ross, Welford Park Gardens, was an easy winner, having grandly flowered plants; Mr. T. Surman, Donnington Grove Gardens, being a good second, the plants being very fine but scarcely at their best; Mr. T. Leith, Beaupre Park Gardens, being third. For best foliage plants, Mr. Ross was an easy first, with large specimens. For exotic Ferns the premier award was easily secured by Mr. T. Leith with grand specimens, Mr. Ross in this case having smaller plants but well grown.

Fuschias, always a feature at Newbury, were scarcely so good as usual. Mr. T. Surman was the winner, Messrs. Ross and Cox securing second and third place. There were some fine *Coleus*, Messrs. Surman, Cox, and Johnson taking the prizes in the order named. The same remark applies to *Begonias*; these were excellent, one rarely sees such high quality; Messrs. Hopson, Maskell, and Surman being the successful exhibitors.

For the best specimen plant in bloom, Mr. Ross was an easy winner with a grand *Hydrangea* having over 100 trusses, the plant being in a small pot; the second prize was a nice piece of *Plumbago capensis* from Messrs. Abernethy and Sons, Tilehurst. The best specimen foliage plant came from Mr. Ross, being a large well-grown *Areca lutescens*. *Gloxinias* were not so good; Mr. J. King had the best plant.

Cut flowers were a great feature; the large collection of Roses brought forth some good material considering the lateness of the season, Messrs. G. Cooling and Son, Bath, leading; Mr. Mead, Bath, had the next best; and Mr. J. R. Tranter, Henley, the third place. In the smaller class Messrs. Evans, Mead, and Mara were the successful exhibitors, but here most of the blooms were too widely expanded. For the best decorated luncheon table there was a keen competition, and the work of judging was difficult. That given the first prize was a charming combination of Iceland Poppies and grasses, and was arranged by Miss Laura Harrold, Mrs. C. Attewell being second, Mrs. Milson third.

Another feature was the class for decorated stages suitable for conservatory; this was very effective and preferable to the stereotyped groups often seen. The first award in this class went to Mr. Ross, who had a charming combination of foliage and grasses, Mr. H. Clark being a good second with more bloom.

Hardy herbaceous flowers made a grand display. The collection from Messrs. Abernethy was very fine, Messrs. Smith and D. Bosby being second and third.

Fruit classes were good, especially Grapes, Mr. Ross having grand bunches of Muscats, scarcely ripe, but fine berries, Mr. R. Maher being a close second. The black Grapes were really fine. Messrs. Mara, Lees, and Surman were the principal winners of prizes. Any other variety found Messrs. Maher and Ross to the front. Peaches were good, and Messrs. Ross and Leith divided the honours. Nectarines were less plentiful, the last-named grower being successful. Plums were a rather small class, Messrs. Elford, Maher, Bosby, and Surman being the winners. Apples and Pears, in most classes, found Mr. Ross to the front, but closely followed by Messrs. Cox and Surman. Mr. Leith had the best red Tomatoes. Mr. Ross had beautiful yellow Jubilee, but others staged good fruits.

Vegetables in some instances showed what an erratic season growers had to contend with; even here Mr. Ross was well to the front, Messrs. Surman, King, Cox, Bosby, and Maskell being the principal exhibitors. For Messrs. Sutton's prizes there was a very poor competition, Messrs. Maskell and Surman being the most successful.

### BRITISH PTERIDOLOGICAL SOCIETY.

THIS society held its customary annual meeting on August Bank Holiday at the Institute, Bowness, Windermere, which was very well attended. After the formal business had been transacted, which included the election of Dr. F. W. Stansfeld as president—Mr. Charles T. Drury not offering himself for re-election, having held the chair for several years—two very interesting papers were read, one by the president on "The Lady Fern," and the other by Mr. J. J. Smithies, illustrating, by means of dried fronds, a very large series of intermediate variations of *Lastrea propinqua* (a sub-species of *L. filix mas*) between the normal and prevailing type, and some very fine varieties found by the author of the paper. Although undoubtedly the specimens (twenty to thirty) demonstrated a gradation, they afforded no evidence that the extreme forms were arrived at by subsidiary steps, a theory which is largely nullified by the existence of so many marked variations having been found in other species without such ostensibly linking forms having been discovered. The exhibition of so many varieties in one species and in one direction, which involved a

\* "The Book of Vegetables." By George Wythes. "Handbooks of Practical Gardening," Vol. VII. John Lane. Price 2s. 6d.

† "The Book of Orchids." By W. H. White. "Handbooks of Practical Gardening," Vol. VIII. John Lane. Price 2s. 6d.

‡ "The Book of the Strawberry." By Edwin Beckett. "Handbooks of Practical Gardening," Vol. IX. John Lane. Price 2s. 6d.



Great expenditure of time and labour in collecting on the part of Mr. Smithies and his co-worker (Mr. Forster), was highly appreciated, and formed, indeed, an unique one in its way. The chief interest of the meeting, however, centred in the demonstration by other exhibitors—especially by Mr. P. Neill Fraser (of Edinburgh) and Mr. J. Edwards (of Manchester)—of the really marvellous extent to which wild "sports" in Ferns can be developed by selective culture. On no previous occasion has this been so clearly shown by the presentation of really exquisite forms, derived, in some cases, from finds of little promise. Mr. Edwards showed at least twenty most delicate types of what is known as the "setigerum" or bristly section of the Lady Fern varieties, some of them, curiously enough, merging into other quite distinct sections, and only differentiated by the bristly character.

It is impossible to convey by mere description the delicacy of cutting and grace of form of many of the exhibits. *Setigerum*, found by Mr. Garnett, of Bowness, may be roughly described as a bristly normal, uncrested, but from the outset its spores yielded a large percentage of bristly, finely tasselled forms, with some tendency to revert. Mr. Edwards' exhibits, however, were nearly all uncrested and simply refinements of the original, while the tendency to dimorphism or reversion appears to be altogether eliminated. Mr. Fraser's exhibits consisted of some sixty odd green fronds of *Polystichum angulare*, raised from spores from the late Mr. E. G. Lowe's collection. The bulk of these were obviously crosses, few of which were other than "curios," caudate, narrowed, cruciate, &c., but about half a dozen exemplified an entirely new section in the family, which was appropriately named "*adiantoides*." The fronds of this section are very broad and decomposed, and the ultimate divisions cuneate and borne on very long stalks, the effect being to transform the long lanceolate, close set, bipinnate frond of the species into an absolute imitation of a dense adiantum. In *Asplenium trichomanes*, a new wild kind was shown by Mr. T. Bolton, a true plumosum (incisum), but differing from previous finds in having the deeply cut pinnae curled (*Asplenium incisocrispum*). This is certainly the finest form yet discovered.

Subsequent to this exhibition the president announced to the society that its forthcoming new Fern book, "The Book of British Ferns," would be published during the autumn by Messrs. Newnes, and would contain a series of interesting articles on the various branches of the cult, copiously illustrated by photography, and with an appendix giving the scientific side brought up to date.

Finally it was resolved that the society would in future issue certificates of merit for varieties brought before it at its annual meetings in the shape of plants, and finders or raisers, whether members or not, are invited to avail themselves of the opportunity thus afforded for competent judging. A hearty vote of thanks to the officers, and a special one to the retiring president, concluded the proceedings.

#### UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening, the 11th inst., Mr. Thomas Winter in the chair. After the minutes of the last meeting had been read and signed, four new members were elected and one nominated. Five members were reported on the sick fund, and two others had been on and off the fund since the last meeting. The secretary was instructed to make the preliminary arrangements for the annual dinner, to be held early in October next.

#### READING.

FAVOURED with delightful weather, the fortieth exhibition of the Reading Floral and Horticultural Society, held last week, was a record success, and the "gate" receipts realised no less a sum than £228. Compared with former years, the entries showed a downward tendency though this was scarcely to be wondered at considering the rather unfavourable climatic conditions. Speaking generally, the produce was well grown, though the quality of the vegetables was hardly up to the average. The flowers looked well, and there were some really fine specimens. The gardens were also of a satisfactory character. The judges were Messrs. H. Wilson (Hardwick), W. Elphinstone (West Bridgford, Nottingham), J. Cartledge (Butterley), and G. M. Knights (Alfreton).

#### ALFRETON.

THE thirty-second annual exhibition promoted by the Alfreton Floral and Horticultural Society was held last week. The exhibits at this show were far in advance of those seen at any of the other shows in the district, both in regard to quality and quantity. In the class for the best group of plants, staged for effect, the first prize was gained by Mr. Joseph Ward, gardener to T. H. Oakes, Esq., of Reddings House. Mr. Ward's group was a splendid arrangement, and comprised some lovely *Crotons*, rare specimens of *Orchids*, and light grasses. The class for the best cultivated gardens aroused keen interest, and reflected the highest credit on the exhibitors, who were all amateurs. The judges were Messrs. J. Ward (Reddings House), G. M. Knights (Alfreton Hall), J. Cartledge (Butterley Hall), and J. C. Tallack (Shipley Hall). The weather, unfortunately, was of a wretched description, and resulted in a material loss to the society.

#### CLAY CROSS FLOWER SHOW.

THIS is the oldest show in the district and one of the most important in the Midlands. It covers a wide area, and some of its competitors have secured more than an average reputation for the growth of produce. There is always a splendid contest here between professional gardeners for the prizes for the best groups for effect, and though a couple of the

competitors scarcely reached the high water mark of previous years, the first prize group could not be excelled. Mr. J. Ward (Mr. J. H. Oakes's gardener at Reddings House, Alfreton) was again the premier, and his success he has repeated for nine or ten years. For colouring and well grown plants Mr. Ward has few rivals. In the Midlands he maintains a high reputation for grouping. For the second place, Mr. H. Mottershaw of Tupton Hall, and Mr. W. Haslam of Handestoft were very close. Mr. Mottershaw had not displayed the taste of Mr. Haslam, but had a few better plants. He got the second place by a majority of votes. Mr. Haslam coming third. Messrs. Artidale of Sheffield was given the fourth card, and Mr. J. Butler of Tibshelf the fifth.

The fruit in the show could not be excelled in any exhibition. Their splendid growth, size, shape, and appearance were in every way admirable. Flowers were not so good, an unfavourable season having a deteriorating effect. Roses and Dahlias especially suffered. Vegetables were admirable.

#### EAST ANGLIAN HORTICULTURAL CLUB.

A LARGE gathering of members assembled at the August meeting of this club under the presidency of Mr. T. B. Field. A well-written paper upon "The Cultivation of Tomatoes" was read by Mr. C. Whitehead, gardener, Thorpe Lodge. Practical points in all classes of cultivation were ably touched upon. A capital discussion followed, which diverted mainly to the ever-debatable subject of fungoid diseases. Upon this subject Mr. Robert Holmes and Mr. F. G. Cole gave many useful hints as to the cause of attack, advocating precautionary measures during cultivation. There was a capital display of cut flowers, fruit, and vegetables upon the exhibition tables. Carnations were a strong class, and some grand border blooms were to be seen, those from Mr. R. Notley, High House, Thorpe, securing the premier award. Peas, too, were also a strong class, and here an amateur—Mr. F. Carrington, Norwich—took leading honours. The floral committee had for adjudication two grand seedling herbaceous Phloxes from Mr. G. Davison, gardener to Captain Petre, Westwick House, Norfolk. One was a pure white of enormous pips and massive head; the other a mixture of pink, carmine, and orange shades, of large form. Both were awarded first-class certificates. Mr. C. Matthews, gardener to Mr. Louis Willett, Thorpe, also received a first-class certificate for a yellow seedling border Carnation, both bloom and "grass" being of sturdy constitution, and it has the advantage of not splitting in the calyx in the driest season. A very pleasant evening was spent.

#### GATEACRE SHOW.

THE thirty-first annual exhibition of this society was held, by the kind permission of the president (Colonel W. H. Walker, M.P.), in the beautiful grounds of The Grange, the glass, flower, and kitchen garden being open to all visitors. This is one of the most successful exhibitions held in the neighbourhood of Liverpool. Unfortunately, the weather was most unpropitious, rain falling from early morning till evening. The aim of the society is to aid cottagers and to improve their gardens. The following exhibits were highly commended:—

Colonel W. H. Walker (gardener, Mr. P. Barham), for a group of flowering plants; C. A. Young, Esq., for a charming collection of cut Carnations; S. D. Skinner, Esq., for cut Sweet Peas, Pansies, &c.; H. D. Bateson, Esq. (gardener, Mr. R. Brighshaw), for foliage plants; Dr. Caton (gardener, Mr. F. Buttery), for flowering Begonias, &c.; Lady Forwood (gardener, Mr. W. Morrey), for cut Dahlias and Carnations; J. B. Atherton, Esq. (gardener, Mr. G. Cliffe), for heavily fruited Orange trees; Colonel J. B. Gaskell, J.P. (gardener, Mr. C. E. Moorman), for a well-arranged group of flowering and foliage plants; and S. S. Bacon, Esq., J.P. (gardener, Mr. J. Rothwell), for choice Grapes, Peaches, Nectarines, &c. The arrangements were of a satisfactory character, thanks to Mr. J. Glover, who has been the hon. secretary through the long course of the society's existence.

#### ROCK FERRY, LIVERPOOL.

THIS society was favoured by splendid weather for its show, which was held in the Olympian Gardens, a position entirely inadequate for so fine an exhibition, on the 14th inst. Small tents were dotted amongst the trees, in which the exhibits were much overcrowded. The committee, if desirous of attaining the position they are worthy of, must cater more liberally both for the exhibitors and their subscribers by securing space in which the exhibits can be satisfactorily arranged.

For a group of miscellaneous plants, arranged for effect, out of the four entries Dr. Cook (gardener, Mr. G. Osborne), gained the premier position. Mr. H. Ogden won the next prize.

For six stove or greenhouse plants, Mr. Osborne again took the lead. For a single foliage plant, the same exhibitor won with a good *Croton*, but wanting in colour. For two exotic Ferns, A. J. Oakshot, Esq. (gardener, Mr. C. W. Findlow), was to the fore with a good *Adiantum farleyense* and *Nephrolepis exaltata*.

For six stove or greenhouse plants in small pots, Mr. H. Ogden was first with good examples. For six table plants, Mr. D. Dellamont won with well-coloured plants. For one *Orchid*, Mr. G. H. Pilkington won with a small *Cattleya gaskelliana*.

For a group, 45 feet square, G. Atkin, Esq., won with good *Caladiums* chiefly. For a display of cut flowers, Mr. H. Ogden was to the front, Sweet Peas and Carnations predominating. The class for twelve bunches of cut flowers, grown in the open, brought a good lot, in which Miss Oakshot led. For a collection of Carnations, the Hon. Mrs. Trelawney (gardener, Mr. J. Clarke) won with fine flowers.

Roses were plentiful for the late season, and of fair quality. Mr. G. W. Hodgson won for the twelve and Mr. R. Kellock for the six. Sweet Peas were good, but crowded

both in the bunches and staging. Mr. W. Johnstone had the best. For a table decoration, Mrs. Edmund had the best out of six competitors, using *Coreopsis*.

Fruit was excellent throughout. For six dishes, P. C. D. Castle, Esq. (gardener, Mr. Charles Irvine), won with excellent Black Hamburg Grapes, well-coloured Hale's Early Peaches, &c. For six dishes of hardy fruits, Mr. Irvine again won. For two bunches of Black Hamburg Grapes, T. B. Kendall, Esq. (gardener, Mr. J. Richards), won with good bunches and large berries. For any other black, Mr. Richards was first with Madresfield Court. For two bunches of Muscat of Alexandria, Mrs. Paterson (gardener, Mr. T. Ferguson) won, and for any other white was first with Buckland Sweetwater. For six Peaches, M. Clover, Esq. (gardener, Mr. A. Crisp) led with very fine Sea Eagle. For six Nectarines, Mr. T. Ferguson was to the fore with Pine-apple, and also for the Melon.

Vegetables were above the average quality. Mr. Clarke securing the chief award in the leading class of nine varieties. For six kinds, R. Brownell, Esq., had the best. For twelve and six fruits of Tomatoes, Mr. W. Millington won in each with fine smooth fruits.

Mr. J. P. Moffat, the hon. treasurer and secretary, done all that could be done under the circumstances.

#### ROYAL HORTICULTURAL SOCIETY.

##### SCIENTIFIC COMMITTEE.

PRESENT: Dr. M. T. Masters (in the chair), Messrs. Douglas, Hooper, Bowles, Saunders, and Baker, Dr. M. C. Cooke, Revs. W. Wilks and G. Henslow, hon. sec.

*Potato tumour*.—Dr. Cooke reported on the specimens sent to the last meeting, which were attacked by a fungus named *Chrysophyctis endobiotica*, which has never yet been described, though the disease, Dr. Masters observed, was not uncommon.

*Larch disease*.—This has been referred to as a fungus of the name *Allescheria laticis*, which was unknown to Dr. Cooke. It turned out to be merely a "MS." name only, with no description, and afforded no solution to the problem of the disease.

*Silver leaf disease*.—Dr. Cooke also reported upon this well-known affection of species of *Prunus*, which has been found by Professor J. Perceval to be due to a fungus, the hyphae occurring where the roots are decayed, which produced sporophores of *Stereum purpureum*. By inoculating healthy Plum trees with the sporophores, the silvery appearance was visible after eight or nine weeks. The infection appears to take place below ground.

A unanimous vote of thanks was given to Dr. Cooke for his three reports, which will appear in full in the Society's Journal.

*Influence of scion on stock*.—Mr. W. B. Latham, of the Botanical Gardens, Edgbaston, Birmingham, sent a bough of a Laburnum, from which a cluster of shoots of *Cytisus purpureus* had grown out. It appears that the tree was purchased some twenty-seven or twenty-eight years ago as a young grafted plant of *C. purpureus* on *C. Laburnum*. The scion grew very well for a year or two on the stock, till a strong shoot grew out below where the graft was inserted. This was cut off to save the graft, but the graft died quite out soon afterwards. The stock was left to grow into a Laburnum tree, which is now from 15 feet to 20 feet high, and as much in diameter. After some three or four years the *C. purpureus* made its appearance in various parts of the Laburnum, and is now to be seen in tufts all over the tree. A somewhat similar case is recorded in the *Gardeners' Chronicle* (1857, page 382), by Mr. E. Purser, Clapham Park. He wrote: "Some few years ago three grafts of the (*Cytisus purpureus*) were inserted, and now the whole character of the tree is changing, and every year since losing the yellow flower of the Laburnum and producing the short purple flower."

*Cattleya* and *Laelia* cross.—Mr. Douglas exhibited a plant, L.-C. Juno, Edenside var., being *C. Mossie* x *L. majalis*. It is usually considered an invariable rule that hybrid *Orchids* betray the characters of both parents. The present plant, though an undoubted cross, was thought to be exceptional. A coloured illustration which Mr. Douglas exhibited of *C. Mossie*, together with the plant, showed a degree of yellow in the throat which was wanting in the living plant. *L. majalis* has a very spotted lip, but this feature was also wanting in the plant. That a cross or hybrid, though usually intermediate, may have one or other parent prepotent is well known; but the second generation, as Dr. Masters observed, will often reveal the other parentage more completely.

*Gypsophila paniculata dimorphic*.—Mr. Henslow called attention to the fact that different plants of this species may have different kinds of flowers, being gynodioecious; that is, in some the styles are greatly elongated, while the stamens are abortive; in others the styles are much shorter and the stamens perfect. They spread outwards and not inwards as in the case of self-fertilising plants.

*Dendrobium dathousianum synanthic*.—Dr. Masters exhibited a specimen (received from Mr. W. Potter, Beckenham) of two flowers coherent by their ovaries and the two adjacent sepals, all the other parts being distinct.

*Proposed investigations*.—Mr. Elwes wrote, in reference to the Larch disease, of the difficulty experienced in obtaining any assistance from a practical point of view in dealing with what was proving to be a very serious disease among trees, and one of immense economic importance. He suggested that if a qualified person could be found, he should undertake a systematic investigation, for which a small grant from the Royal Society would most probably be forthcoming. Mr. Elwes adds that the disease cannot be studied in the laboratory alone, but only profitably by visiting places where it has appeared, so as to discover the conditions which produce it.

The floral committee met at Chiswick on the 12th inst. to inspect the large collection of Phloxes growing in the gardens.

Present: W. Marshall, Esq. (in the chair), and Messrs. H. B. May, R. Dean, W. P. Thomson, K. C. Notcutt, G. Reuthe, C. Dixon, and J. Hudson.



The undermentioned varieties received  $\times \times \times$  (i.e., highly commended):

Kaiser Wilhelm grows a little over 3 feet high and bears long spikes of bright rosy scarlet flowers with a prominent crimson centre. Sent by Messrs. Barr and Sons, Covent Garden.

Le Vengeur is not quite so tall as the last-named, but it is of sturdier habit and wonderfully free-flowering; flowers large reddish purple or carmine, deepening towards the centre. Sent by Messrs. Veitch and Sons, Chelsea, and Messrs. Barr and Sons.

Regulus, a compact sturdy variety, is distinct, floriferous, and very pretty. Its flower spikes are large, individual "pips" bright salmon, paler near the rose-coloured centre. Sent by Messrs. Barr and Sons.

Ferdinand Cortez grows about 2 feet 9 inches high, and bears massive spikes of attractive rose-pink flowers with a white centre. Sent by Messrs. Dobbie, Rothesay, Messrs. Paul, Cheshunt, and Mr. J. Forbes, Hawick.

James Farquhar is one of the most beautiful of light-coloured Phloxes at Chiswick. Its handsome spikes of white flowers, slightly suffused and streaked with purple, are borne with great freedom. Sent by Mr. J. Forbes.

Sylphide has been a favourite in good gardens for many years; it is still one of the best white-flowered varieties grown, and possesses all the good qualities one looks for in a first-class Phlox, being of compact sturdy habit and very floriferous. Sent by Messrs. Dobbie and Mr. J. Forbes.

Eclairer is remarkable for its strong habit, freedom in bloom, and large shapely bright rosy carmine flowers, passing to a softer shade in the centre. Sent by Messrs. Veitch and Messrs. Barr.

Seosistris is vigorous and very free-flowering. Its rich carmine flowers borne on long spikes do not burn in the sun. A grand border plant, sent by Mr. J. Forbes.

Although the Drill Hall on Tuesday last was by no means full, there was a good display of plants and flowers. Messrs. Kelway's Gladioli were a particularly brilliant feature, and several other firms displayed cut flowers largely. The exhibits of fruit and Orchids were not numerous.

#### FRUIT COMMITTEE.

Present: Messrs. H. Balderson, Joseph Cheal, Henry Esling, Alex. Dean, Horace J. Wright, J. L. Lane, and G. Kell. Messrs. James Veitch and Sons, Limited, Chelsea, were given a silver-gilt Knightian medal for an exhibit of Plum trees in pots. They were carrying excellent crops of fruit, and were best represented by Grand Duke, Golden Transparent Grape, Jefferson, Reine Claude de Comte Hathem, Coe's Golden Drop, and Early Transparent.

A vote of thanks was given to C. C. Paine, Esq., Hillfield, Haverstock Hill (gardener, Mr. H. B. Vyse), for fruits of *Monstera deliciosa*.

W. W. Shuter, Esq., The Gardens, Belsize Grove, Hampstead (gardener, Mr. Armstrong), exhibited a box of Peaches grown within three miles of Charing Cross from a tree planted in 1876. Vote of thanks.

Dr. Bonavia, Westwood, Richmond Road, Worthing, exhibited the Lucknow Melon, a white-fleshed fruit of fine flavour when fully ripe. It is known in Lucknow as Chitla Kharboosa, which in English means Spotted Melon. It is easily grown in Worthing.

Mr. George Kelf, South Villa Gardens, Regent's Park, was given a vote of thanks for a dish of Plums McLaughlin's Gage. Mr. George Wythes, Syon House Gardens, Brentford, showed Vegetable Marrow Wythes' Prolific.

Mr. A. Johnson, Duffield Gardens, Stoke Poges, sent a scarlet flesh seedling Meloo.

#### ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, J. G. Fowler, de B. Crawshaw, Walter Cobb, Frank A. Rehder, E. Hill, W. H. White, E. W. Ashton, H. T. Pitt, W. Thompson, and H. Little.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited several good Orchids, notably *Lælia majalis*, *L. elegans*, *Cypripedium Nandii* (C. callosum  $\times$  C. tautianum).

A cultural commendation was awarded to Sir Trevor Lawrence, Bart., Burford, Dorset, for a finely-flowered plant of *Odontoglossum aspidorrhinum*. Sir Trevor Lawrence, Bart. (Orchid grower, Mr. W. H. White), was also awarded botanical certificates for *Houlletia brocklehurstiana* and *Sarcanthus appendiculatus*.

Messrs. F. Sander and Sons, St. Albans, exhibited *Lælio-Cattleya blechleyensis*, *Cypripedium William Matthews*, C. Mars, L.-C. Mrs. E. Rogerson, L.-C. *Callistoglossa*, and others.

Norman C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. H. J. Chapman), sent from his famous collection *Cypripedium  $\times$  vexillo-lo*.

W. M. Appleton, Esq., Weston-super-Mare, showed *Cypripedium Phoebe*, C. tautianum lepidum, C. Eos, C. Julia, and C. Rolfei.

A very good raceme of *Lælia crispata*, carrying nine blooms, was shown by Mr. H. Little, gardener to A. Howard, Esq., The Barons, Twickenham.

#### NEW ORCHIDS.

*Cattleya  $\times$  Lady Ingram* (Westfield variety).—A large, handsome flower, with an extremely richly-coloured lip, orange, except for a bordering of purple. The sepals and petals are almost white. Exhibited by F. Wellesley, Esq., Westfield, Woking (gardener, Mr. F. Gilbert). First-class certificate.

*Lælio-Cattleya Ingrami* (Roslyn variety).—An award of merit was given to this Orchid, which was exhibited by H. T. Pitt, Esq., Stamford Hill (gardener, Mr. F. W. Thurgood). The sepals and petals are a rich rose, the colour of C. bowringiana, the lip an intense velvety purple; very handsome indeed.

#### FLORAL COMMITTEE.

Present: Messrs. W. Marshall (chairman), J. Walker, H. B. May, G. Gordon, J. Jennings, J. F. McLeod, G. Reuthe, Wm. Howe, J. Fraser, Charles Dixon, R. W.

Wallace, Chas. E. Pearson, W. Cuthbertson, E. H. Jenkins, W. P. Thomson, J. W. Barr, J. H. Fitt, Chas. Blick, George Paul, and E. T. Cook.

Messrs. Barr, Covent Garden, showed hardy flowers in profusion, notably Tufted Pansies, of which we noted Ralph (blue), The Mearns (of the Magpie group), Lucy Franklin (soft yellow and white), and Admiration (rich purple), Phloxes, and Sunflowers. Tritomas and the hybrid were also in great variety. A distinct plant is the erect *Eulalia*, E. sinensis zebrina stricta. Pentstemon barbata, with several Eryngiums, were also noted. *Kniphofia corallina* is the most striking of the red forms of this group, and very bold withal. Hardy Nymphæas were very beautiful in many shades and good flowers. Gladioli were also represented in at least two sections. A very interesting array.

Mr. Amos Perry, Winchmore Hill, showed hardy flowers as usual in many good things, for example, the Fire Pink (*Silene virginica*), a glow of scarlet flowers; *Buddleia variabilis*, fine blue; *Gentiana septemfida*, *Lychnis haageana*, in scarlet, crimson, and white; *Aster Thompsonii*; good lavender blue; *Lythrum*, *Zauschneria californica*, *Platycodon Mariæ*, *Phloxes*, *Potentillas*, and a set of herbaceous Lobelias.

The Hollyhocks from Messrs. Webb and Brand were a reminder of other days; bold effective spikes in many shades of colour, such as rose, pink, black, flesh, cream, scarlet, and the like, while a set of boards arranged in front with two dozen flowers each displayed a remarkable range of colour. Silver Banksian medal.

Messrs. Kelway and Sons, Langport, filled an entire table with their sumptuous Gladioli, many fine spikes, while the flowers were of the best in such a sunless year as the present one. A few of the best in this formidable lot were Countess Amy, pink; Vivid, scarlet; Richard Milner, yellow; Colonel Morgan, salmon; General French, crimson; Grenfell, salmon-scarlet; Gribou, white, flaked lilac-rose; Fashoda, good scarlet; Hannibal, salmon, with yellow and scarlet flame; and Eris, scarlet-yellow throat, were some of the most distinct in a very fine lot. Silver-gilt Flora medal.

Crotons from Mr. H. B. May, Edmonton, were shown in 100 varieties, filling one table with the gold and yellow and crimson colouring of the plants. The plants were all of the serviceable size in about 6-inch pots, and, being about 1 foot to 2 feet high, were also of useful pattern. Russell, Countess, Queen Victoria, Albert Truffant, Thomson, Hawkerii, green with yellow in large degree; Evansianus, Mars, Sunshine, Picturatus; Rubellum, very dark; Gordonii, with much twisted leaves; Sunrise, a showy red kind; and Sunset were of the very best in this large array of variegated plants. Silver-gilt Flora medal.

Messrs. Paul and Son, Cheshunt, showed a charming lot of Roses, such as Mrs. Grant, Gustave Regis, Bardou Job, Céline Forester, Sonv. de M. Carnot, Marie Van Houtte, Mme. Falcot, and others that, considering the great rainfall, were good in every way. Silver Banksian medal.

Mr. M. Prichard, Christchurch, Hants, showed a great bank of hardy flowers, Aconites, Gladioli of the Lemoine group, Day Lilies, double Sunflowers, Pentstemons, Rudbeckia Newmanii, Echinops nivalis, a large head; Clematis coccinea, Montbretia Pottsi grandiflora, very fiery orange; Kniphofia Rufus, red and yellow, very showy; Phloxes in many colours, Chrysanthemum maximum grandiflorum, fine white; Delphinium Zalil, a fine mass of sulphur-yellow blossom; Montbretia Geo. Davison, fine yellow, very large; Crinum Powellii, Kniphofia Lemon Queen, and many other showy and good plants. Silver Flora medal.

Messrs. T. S. Ware, Feltham, had a display of hardy things in which Phloxes, Eryngiums, Potentillas, Statice, Delphiniums, Platycodons, Sunflowers, Lemoines, Gladioli, and Lilies of the speciosum section occurred in large numbers; Crinum Powellii album was very fine; and Lobelia cardinalis grandiflora, very striking in colour. The massed Phloxes in this group were very fine, and the flowers delicately fragrant. Many other interesting plants, such as *Gentiana Pneumante*, were shown in small pots. Silver Flora medal.

Messrs. Storrer and Storrer, Dundee, showed Streptocarpus, Lobelias in pots, Celosias, Begonias, and the like. Some of the Lobelias were very fine, that labelled Crystal Palace compacta being one of the richest blues we have seen. Attraction, blue with white eye, is also decided and good; while Miss Masson may be accepted as one of the best pure white kinds. Silver Banksian medal.

Messrs. Cannell and Sons, Swanley, brought a grand lot of Godetias, such as Grandiflora rosea plena, Duke of York and Rosamond, together with Calliopis atkinsoniana and atrosanguinea. Lavatera trimestris was a charming lot of a most effective pink. The group was backed with *Rochia Scoparia* and other things, and was much admired. Silver Flora medal.

A group of mixed plants were shown by P. Funnell, Esq., and consisted of Palms, Fuchsias, Celosias, Ferns, Coleus, and the like. Bronze Banksian medal.

Messrs. Veitch showed the beautiful *Eucryphia planifolia*, a mass of white Poppy-like flowers; *Buddleia variabilis* vetchiana, a remarkable plant from Central China, to which we shall refer again, and *Sambucus canadensis*, large heads of white flowers.

Mrs. Davis Evans, Llanybyther, South Wales, sent a grand lot of the newer Water Lilies, for which a bronze medal was awarded.

A large group of Crotons arranged on the floor were from G. W. Bellgrove and Sons, Hammersmith. The plants were well grown and finely coloured. Bronze Banksian medal.

A choice set of Cactus Dahlias were from Mr. H. Shoemith, Woking, the varieties being Primrose Queen, Lord Kitchener, crimson; E. A. Wellesley, crimson shaded purple; H. W. Sillen, orange-vermilion, and Lord Milner, due crimson with deep red centre.

Eleven varieties of Carnations came from B. W. Vernoo, Esq., Towcester (gardener, Mr. W. Bachelor), the kind being of self and striped forms.

Mr. George Wythes, gardener to the Duke of Northumberland, showed Campanula pyramidalis in two forms, the flowers larger than usual, and good bold spikes.

Messrs. Low and Co., Enfield, brought a group of Ericas mixed with Statice, for which a vote of thanks was accorded.

Mr. Wm. Bull and Sons, Chelsea, contributed half a dozen plants of *Lilium auratum* var. *virginale*, the flowers of medium size, but very pure and fragrant. In addition the firm had a set of new Caladiums, some very striking and beautiful, and others so dainty and almost transparent, appearing more artificial than real. For instance, one called Rio de Janeiro was of this apparently transparent class, with red markings, while green and red appeared in suffusion over the entire fabric of the leaf. General was of glowing red, and Botafago, a carmine with pale green border. There were several others all more or less conspicuous by their quaint and curious marking or colour combination.

A first-class certificate was awarded to *Buddleia variabilis* var. *vetchiana*, a variety with densely flowered spikes fully 9 inches in length and probably three times larger than the typical kind. In other respects the foliage, &c. partakes of characteristics very similar to the type; indeed, it is a glorified form of this, and a grand addition to flowering shrubs. The plant inhabits Central China, and is said to attain some 15 feet high. Shown by Messrs. Veitch and Sons, Limited, Chelsea.

The following received the award of merit:—*Senecio clivorum*.—We have in this stately plant some reminder of the larger *Bupthalmums*, particularly in the orange flower heads. For the large border or the wild garden the plant will be very effective, being well furnished with huge, almost reniform leaves, set on petioles of nearly 2 feet long. The height is 4 feet or more, and the plant quite of the uncommon kind. From Messrs. Veitch and Sons, Limited, Chelsea.

*Gladiolus Coronation*.—In this handsome flower the colour is white, suffused with delicate pink in the upper region of the flower, while in the lower half a huge blotch of crimson velvet is most conspicuous. This effective colour combination is most remarkable. Shown by Messrs. Kelway and Sons, Langport.

*Gladiolus Empire*.—This is another fine novelty, the chief colours in the upper part of the flower being rose and flesh, while a golden-yellow blotch and purplish crimson cover the larger portion of the lower petals. A fine addition to these flowers. Shown by Messrs. Kelway and Sons, Langport.

*Dahlia F. A. Wellesley*.—A fine Cactus variety, in which the predominant shade is carmine of a rich and bright tone, the sides of the florets revealing a ruby-red tone. Shown by Mr. H. Shoemith, Woking.

*Corayline indivisa* P. Elder.—A dark and narrow-leaved form, a finely-grown example of this useful plant. Shown by P. Elder, Esq., Ham, S.W.

*Montbretia Geo. Davison*.—A strong-growing yellow self kind, in which there would appear much of the *Crocus* characteristics in the larger and more open flowers. Shown by Mr. Geo. Davison, Westwick Gardens, Norwich.

*Carnation The Shah*.—A yellow ground Carnation lightly striped with bright scarlet; indeed, it is the brightest and most effective of its class we have yet seen. The flowers are large and handsome. Shown by Mr. Martio Smith, Hayes, Kent (gardener, Mr. Bick).

*Caladium Girceod*.—Quite a novelty among these plants; the leaves are greenish and cream, with scarlet blotches. From Mr. W. Bull, Chelsea.

*Kniphofia Rufus*.—A rather effective variety in which the gold and scarlet colours are seen to advantage. Shown by Mr. M. Prichard, Christchurch.

#### BISHOP'S STORTFORD.

FORTUNATELY, there was little rain to interfere with this annual flower show, one of the most important horticultural events in the Eastern Counties, which was held on the 14th inst. It was the thirty-third show, and held, as usual, at The Grange, a lovely spot for such a purpose. The hon. secretary, Mr. W. Smith, who never tires in promoting anything concerning horticulture, and who directs the affairs of the society, certainly deserves great praise. Mr. Smith is also ably assisted by a splendid committee. The special features of the show were undoubtedly the table decorations and the groups, though fruit and vegetables were well staged, and there was no lack of competition in the plant classes. A separate marquee was entirely devoted to the ladies' exhibits, and no less than thirty-five tables were decorated for the event, a number rarely exceeded at any show.

#### TABLE DECORATIONS.

The first prize was obtained by Mrs. G. Osmond, of Bishop's Stortford, the flowers used being pink Geraniums, Maiden-hair Fern, and *Soilax*; Miss M. Dixon, Harlow, being second with Sweet Peas, beautifully blended, Miss Spencer was third. The other classes, in which there was good competition, were for decorated fire-places and mantel-boards, there being eleven exhibitors. The first prize was taken by Miss Gwynn, who had a beautiful arrangement of leaves and foliage, with a few light flowers here and there. Miss M. Blyth was a good second, Roses and Ferns being employed. Miss Hughes was third. For baskets of flowers, Miss E. Spencer, Clavering Hall, was an easy first with *Gaillardias* and *Marguerites*. Miss Livesey was second. For vases of cut flowers, Mrs. Livesey was first, having a beautiful vase of Hollyhocks and white Campanulas; Miss Harwood being second with scarlet Gladioli.

#### PLANTS.

The groups arranged for effect were much above the average. Mr. A. Jeffries, gardener to J. Balfour, Esq., was first, and Mr. C. Gold second, the latter being very close and having good flowering plants, but too heavy material for the background. Colonel Archer Houlton was third. The best stove and greenhouse foliage plant came from J. Barker, Esq., also the best Ferns; Mr. C. Gold being second. Mrs. A. Taylor had a splendid group of tuberous Begonias, Mr. W. Smith being second, but his plants were scarcely advanced enough. In the other plant classes zonal Geraniums



made a fine display, Messrs. Barker and Taylor taking the prizes in the order named. For table plants, Colonel Houlton and Messrs. Gold and Barker were the most successful. Mr. W. Smith had a fine lot of single Geraniums; Messrs. Taylor and Holland the best Fuchsias.

#### CUT FLOWERS.

In the open class for cut hardy perennials some beautiful groups were staged. Messrs. Paul and Son, Cheshunt, were a good first, Mr. H. A. Hare being second with smaller bunches.

In the other cut flower classes Sweet Peas brought forth a grand array of material for the Eckford prizes, Mr. G. A. Seaward and Miss Newmar being the winners. For Messrs. M'Sullen's prizes there were some grand stands, Messrs. Seaward and Barker leading. Mr. J. Barker had the best stove and greenhouse cut blooms, also the best twelve bunches of hardy perennial cut flowers, Mrs. Gee being second. The prize for best Mme. Desgrange Chrysanthemum was taken by Colonel Archer Houlton. Asters and Dahlias made a poor display. Roses also were weak. Carnations small, but plenty of variety.

#### FRUIT.

Fruit was well shown, the collections being above the average. Colonel A. Houlton sent splendid Grapes, Peaches, Apricots, and Nectarines. Mr. Barker was a close second with good dishes of Pears and Grapes. The same exhibitors were first and second for baskets of fruit, the Grapes in the first lot being specially fine. There was a strong competition in the Grape classes, Colonel Houlton, Mr. John Bailey, M.P., and Mrs. Pearson having the best dishes. For Muscats, Messrs. Gosling and Barker had fine bunches, Mr. J. Balfour the best Melons. Peaches were good, Messrs. Bailey and Sir J. Blyth having the best. In the Apple and Pear classes Messrs. Neal, Bailey, and Barker were the leading exhibitors. Plums were good, and Mr. Holland had the best Greengages.

#### VEGETABLES.

These made a splendid show, the leading prize for collection being well won by Mr. Jeffries, gardener to J. Balfour, Esq., Mrs. Gee being second. For smaller collections, Messrs. Calvert and Hall were the winners. In the single dish classes there was a strong competition.

Among trade exhibits, Mr. Mortimer, Farnham, Surrey, showed some beautiful stands of Dahlias, two new Cactus varieties—Mrs. Bailey and Mrs. Barker—receiving certificates. Messrs. Hobb and Brand, Saffron Walden, sent some very fine Hollyhocks, well staged, and carrying grand spikes of bloom.

#### NATIONAL AMATEUR GARDENERS' ASSOCIATION.

IN consequence of the Bank Holidays of August interfering with the usual monthly meeting in the first week, the August meeting this year was fixed for Tuesday, 12th inst. On this occasion the large hall of Winchester House, Old Broad Street, E.C., was arranged with an excellent exhibit of garden produce. Cut flowers were the predominating feature of the display, and the varied character of the exhibits proved how wide is the range of subjects which the members interest themselves in. Competitions for six bunches of hardy flowers, six bunches annuals, sprays of Violas, Carnations, and other subjects created considerable interest, and in several instances the competition was very keen. Two excellent classes for competitive displays, one for London growers, and the other for members living in the country—in fact beyond a radius of five miles of the Royal Exchange always bring out some beautiful displays. Each class is for the best exhibit of flowers in the respective divisions, and by its means members can exhibit anything in the way of flowers either on the plant or in a cut state. In the open class twelve bunches of superb Sweet Peas, charmingly arranged, secured first prize for Mr. D. B. Crane, Highgate, and in the limited class Mr. F. W. Barnes, South Woodford, was first for a beautiful exhibit of tuberous Begonias and Petunias artistically displayed. Second prize was won by Mr. Bland G. Sinclair with a capital lot of Gloxinias, grown within four miles of Charing Cross. Seven ladies competed in a class for a bowl of Sweet Peas, and very pleasing were the effect the leading exhibits made. The foregoing will give some idea of what is being done.

In an adjoining hall, under the chairmanship of Mr. D. B. Crane, Mr. G. M. Gross read an interesting and practical paper on "Bulbs, and How to Grow Them." A capital attendance was registered, and all appeared to follow the lecturer with marked attention. This being a subject of very general interest to amateurs, the discussion resulted in a delightful evening being passed. Many questions were asked, each of which Mr. Gross replied to. It was announced that the president, Mr. T. W. Sanders, F.L.S., will give the next lecture on September 2, the subject being "How Plants Grow and Feed." The secretary is Mr. F. Finch, 117, Embleton Road, Lewisham, S.E.

**Shrewsbury flower show.**—This famous show opened in beautiful weather, and there was keen competition in most of the classes. A full report will appear next week. Mr. Shingler, gardener to Lord Hastings, won the first prize and champion cup for twelve bunches of Grapes, gaining 105½ points out of a possible 112. Messrs. Buchanan were second with 98½ points, and Mr. Thomas Lunt third with 95½ points. Mr. Goodacre, The Gardens, Elvaston, won the first prize for a decorated dessert table with a grand exhibit, 121 points; Mr. Mullins, gardener to Lady Somerset, was second with 111 points, and Mr. McDonald third with 109. Mr. Jordan, Impney

Hall Gardens, was first for sixteen dishes of fruit, Mr. Goodacre second, and Mr. Dawes, Temple Newsam, near Leeds, third. Mr. Jones, York House Gardens, Malvern, was first for twelve dishes of fruit. There were many beautiful trade exhibits. For a group of ornamental plants, Mr. Cypher, of Cheltenham, was first, showing very fine Crotons; Mr. Thompson, gardener to G. H. Turner, Esq., of Derby, was second. Mr. Cypher was also first for a group of miscellaneous plants; Mr. McDonald, gardener to G. H. Kenrick, Esq., was second. Mr. B. Cromwell, gardener to T. S. Timmis, Esq., Allerton, was first for twenty stove and greenhouse plants; Mr. Cypher second.

#### Cardiff Gardeners' Association.

The members of the above association held their annual outing on the 11th inst., and visited Highbury, Birmingham, the seat of the Right Hon. Joseph Chamberlain, M.P. The party, numbering sixty, left Cardiff in saloon carriages at 6.25 a.m., reaching Ye Old Royal Hotel at 12.30, where dinner was thoroughly enjoyed after the long journey. The toast list was a brief one, for time was limited. The loyal toasts were given by Mr. F. G. Treseder, who presided. The next toast was that of "The Right Hon. Joseph Chamberlain, M.P.," submitted by Mr. John Julian, who said how deeply indebted they all felt to Mr. Chamberlain for allowing the members to visit his beautiful garden. "The Cardiff Gardeners' Association" was submitted by Mr. Bishop, and responded to by Mr. C. E. Collier, chairman; Mr. Thomas Malpass, hon. treasurer; and Mr. John Julian, hon. secretary. The party then journeyed to Highbury, and Messrs. Deacon and Mackay kindly accompanied the members round the gardens. The contents of the numerous glass houses were greatly admired, as was also the beautiful pleasure grounds. On completing the tour round the gardens a vote of thanks was accorded to Mr. Deacon and Mr. Mackay for their courtesy. The party left Birmingham at 11.30 p.m., reaching Cardiff at 4.30 a.m. on Tuesday, having enjoyed one of the most successful outings the association has ever had.—J. JULIAN, Hon. Secretary.

## ANSWERS TO CORRESPONDENTS. RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Name of plant.**—W. E. C.—Epidendrum sp.

**Flower show schedules** (C. Herts).—Unfortunately schedules for the guidance of exhibitors are not always drawn up with that careful accuracy in wording which should characterise a model schedule. Not having all the particulars before us, it is difficult to express an opinion in the case you mention; but from your statement, and the conditions laid down for this class in the schedule, we fail to see any justification for disqualifying your exhibit.

**Veronica cypripedium** (J. M. B.).—We have not noticed the "disease" on *Cypripedium lawsoniana* before, but the same longitudinal splitting of the bark occurs in young Pines whose bark has been exposed to sudden bursts of strong sunshine.

**Hardiness of Chinese Ash.**—I should be grateful if you could let me know whether the Chinese Ash (*Fraxinus Mariesi*) is hardy enough to plant in a cold part of Worcestershire. I have observed nice trees of this in southern gardens, but not in any of those which I have visited in the Midlands.—A. R. GOODWIN. (Certainly worth trying in Worcestershire. It has stood 30° of frost without injury.—Ed.)

**Potting soil for Geraniums** (AMATEUR).—Our correspondent is fortunate in possessing good loamy soil, the upper surface of a grass field. A better medium for potting soft wooded plants, such as Geraniums, Fuchsias, Begonias, Balsams, Petunias, &c., cannot be had. He should stick at many of the turves as will last him some years. For potting Geraniums the loam should be passed through a half inch sieve (taking care of the rough fibre that will not pass through, as this is the best article to use for placing over the crocks in the pots). To the loam should be added

roadside scrapings or river sand to the extent of one fourth, adding another fourth of horse manure, leaf-mould, or dry short manure. This when well mixed together and kept fairly dry will make excellent soil for potting Geraniums.

**Plantain on lawns** (E. M.).—The common Plantain is a perennial, and unless kept in check will spread both in growth and by seeding. Certainly the best way to rid a lawn of these weeds is to extract them with the aid of a sharp spud or chisel, cutting them low down. If you think that method too slow or costly you can try the use of Watson's lawn sand, as that if freely used settles on the hearts of the plants and gradually burns them out. The result is, whilst killing the plants, to leave them browned, disfiguring the lawn for some time. The lawn mower should be freely used to prevent plants from seeding. You may try a can containing paraffin, and with the aid of a piece of wire and a small piece of rag wound round one end, allow three or four drops of the oil to fall on the heart of each plant. Still that would be almost as slow a process as extracting the weeds, and not so effective.

**Grapes splitting** (H. D. R.).—We think your Grapes are suffering from too moist and close an atmosphere. Give more air day and night and probably the splitting will cease. We of course do not know what sort of a crop your Vines are carrying but suspect not a heavy one. Another year let them carry a heavier crop with a freer circulation of air and the splitting will most likely not recur. The ailment is not a disease, and consequently bears no name. It is usually caused by defective ventilation and under cropping. The Grapes being unripe it is difficult to say what the variety is, but we think it is the Royal Muscadine. Send us samples when ripe and we will then give you the name for certain.

**Silene** (T.).—Your flower is simply an annual *Silene*, one of the many varieties in gardens. It is easily raised from seed sown in the open garden in spring.

#### Hop Trefoil

on lawn (JUDIE OWEN).

The plant which seems to have taken possession of your lawn is evidently the creeping *Trifolium procumbens*, which grows close to the ground, has small yellow flowers, and is sometimes grown as the true Irish Shamrock. It would seem as if the damp, cold nature of the season was responsible for its increase, as hot, dry weather is detrimental to its growth. Only a few days ago we saw the smooth-mown sward of a Surrey churchyard literally a mass of golden-yellow with its tiny flowers, and there it seems to have done what it is doing with you. You can no doubt remove much of the plant by severely tearing it out with iron rakes; still, it is probable that the next hot, dry season will materially check it. It is an annual, hence comes yearly from seed.

**Grape Madresfield Court cracking** (J. M. BROWN).—This is a common complaint in respect to this, one of the handsomest and best quality Grapes. We have grown it for a great number of years, and have scarcely ever suffered from this annoying complaint. We attribute our exemption to the fact of cropping the Vines fairly heavy and to the practice of admitting air rather freely day and night all the season through, and especially when the swelling of the berry is completed, and also during the time of colouring; in fact, until the Grapes have been cut. Madresfield Court is one of those Grapes which succeeds best under cool treatment; indeed, some of the best samples we have ever seen were grown in a cold vinery entirely devoid of any artificial heat whatever. It will succeed better in a Hamburgh vinery than in a Muscat house, where a fairly high temperature has to be maintained, but even if a little air is left on the lights opposite the Madresfield Court Grape day and night all the season through, and the Vine is allowed to carry a crop inclining to be heavy, our correspondent we feel sure will, like us, secure exemption from splitting.

**Rosemary dying off** (A. H. MURRAY).—The plant is evidently of considerable age, and this we regard a chief cause of the failing. You should layer some of the best bushy portions at once, and so save the greater part by replanting the young bushes in a fresh spot. Old plants frequently go off in this way when after years the soil becomes exhausted. The little brown insect is a species of scale that, if numerous, may do much harm. It may be checked by syringing with a mixture of petroleum and soft soap. To three gallons of soft water employ one wine-glassful of petroleum and 3oz. of the soap. First dissolve the soap in hot water. Stir freely while using the mixture.



ANNUAL SILENE (NEARLY  
NATURAL SIZE).



# THE GARDEN

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[AUGUST 30, 1902

## A GREAT HORTICULTURAL SHOW.

**A**S a national exhibition of the general product of the garden the Shrewsbury show is perhaps the most important in the British Isles. It is difficult to say which section of the exhibition merits most attention, whether it is the gigantic and superbly grown specimen plants, the wonderful and effective combination of plants, both foliage and flowers arranged in groups for effect, the rich and varied collections of exotic and other cut flowers, the bouquets, baskets of flowers, and other beautiful devices too numerous to mention, or the rich collections of hardy and half-hardy plants and cut flowers collected together in immense masses.

But perhaps the fruit and vegetables are the most conspicuous feature. At the show held last week they were a wonderful sight, and, as most of the tables were decorated with flowers and plants, proved an exceptional feature. The vegetables were remarkable, and showed the high culture now attained. There are great possibilities in this direction, and a rich source of wholesome food is awaiting to be tapped for the teeming population of England. The committee of the Shropshire Horticultural exhibition and the joint hon. secretaries, Messrs. Adnitt and Naunton, deserve unstinted praise for the services they have rendered without fee or reward in bringing about this marvellous collection of national horticultural products.

If only the spectacular point of view were considered the results would not justify the efforts; but it is not so. This is evident to anyone who chooses to follow the crowd through the tents and listen to the expressions of delight and pleasure evinced from the highest to the lowest. Only one conclusion can be arrived at, and that is the good work done at Shrewsbury is reflected far and wide in the homes, the gardens, and the lives of those who are privileged to be present, and as regards the higher art of gardening (gardeners were there by the hundred-) such an exhibition provides many good lessons.

The specimen plants were considered the finest seen at any show for some years. We wish they were arranged more effectively, and the immense pots and hideous props hidden from view. The groups arranged for effect were not up to the usual standard, nor the bouquets and choice cut flower classes. The

collections of cut herbaceous flowers, on the other hand, were of remarkable beauty and interest, and showed the greater interest taken in hardy perennials than tender exotics, requiring expensive glass houses for their culture.

The decorated tables of fruit were much admired. They were arranged with great taste, and were among the most interesting and beautiful exhibits in the show.

Apart from some of the Grapes, the fruit classes were not startling, and the finest Grapes were chiefly represented by the coarser varieties, such as Gros Maroc, Alnwick Seedling, and Alicante. Exception must be made, however, in this respect, as superb bunches of Mrs. Pince and Muscat Hamburg were shown respectively by Mr. Lunt and Mr. Goodacre.

With regard to fruit, the great excitement of the show centred round the great Coronation challenge class (to which was attached in the way of first prize a challenge cup of the value of £50, besides a cash price of £20) for twelve bunches of Grapes in four or more varieties. There were ten entries, a total of 120 bunches, and the two judges, Messrs. Crump and Speed, had no enviable task allotted to them, especially in the short time at their disposal. We think that they must have been hampered more or less by the conditions imposed in the schedule for judging in this class. Far better would it have been to leave such important classes (or indeed classes of any kind) to the ripe judgment and experience of the best gardeners in the land, who are appointed to carry out this duty, than to try and fetter their efforts with irritating conditions. There was a general opinion that three judges would have been better.

## HERBACEOUS PHLOXES.

HERBACEOUS PHLOXES are pre-eminently the hardy flowering plant of the present season. No excuses therefore need be made for commencing so seasonable an article. Showy and varied in their colouring, and in a degree that can only be regarded as remarkable, these easily grown and profusely flowered plants should not merely find their way to all good gardens where now effective masses of colour may be needed, but should also be cultivated as their merits demand. Too frequently, however, the plants are admitted to this or that garden and given a place in the border, and often enough only in the borders that encompass the kitchen garden proper. If the garden is a large one with spacious lawns and pleasure grounds it is but rarely the Phloxes are found in anything like good condition, even if at all.

Yet it is not clear why so good and useful a group of hardy flowering plants should be relegated to an area so limited and, in comparison with their worth, so undignified. Happily in some good gardens these plants are not so restricted, and it is in such instances that we see the value of these plants fully displayed. In the historic gardens at Syon House, Mr. George Wythes, foreseeing the great value of the herbaceous Phlox for effective grouping, has filled many large beds with these plants in separate colours, the only way in which Phloxes may be seen to advantage. In a similar manner at Kew have these things been massed either in beds or in handsome blocks of colour in the border, where snowy purity, brilliant salmon, scarlet, or vermilion, and more recently the remarkable departures in greyish blue and heliotrope violet, and from these to a purplish hue, have all been afforded an opportunity of display or of contrast, not only with their fellows, but with such other things as may be then in season. Not that we want much, if indeed anything, to be quite near the Phloxes, for in these there is a sufficiently large area of colour to satisfy the most fastidious mind. What one most of all deplores perhaps is to see these beautiful plants struggling for life in the usually overcrowded shrubby border.

"It is not a good Phlox year at all" is an expression by no means uncommon, by which is generally implied that from the nurseryman's point of view the flowering is not good. Obviously, too, it is an inference that no special attention is paid to this class in a dry season. This I regard as a mistake, and one for which the nurserymen must themselves suffer. Thirty years ago I was engaged in the Tooting nurseries of the late Mr. Robert Parker, and Phloxes were always a great success there, yet the very light sandy soil, resting as it did upon a deep bed of pure sand and gravel, was anything but an ideal one for the Phloxes, and had the plants been left alone the results would have been pitiable in the extreme. As it was no such beds of these plants could be seen around London at that time. Giant heads or panicles 18 inches through were usual, and for which frequent attention and much moisture was mainly responsible. Edged around with the common *Gentianella*, closely run into a dense verge, so to say, it was possible by this means and the low flat surface to deluge the specimen beds containing the plants twice a week in very hot weather. Any beds not so edged around were soiled up for the time. To the perfection to which the plants were grown was due the fact that several thousand plants were sold each year. It certainly can be no encouragement to a would-be purchaser to see the plants weltering in the sun's heat, and few plants so well repay good culture. The need for this watering or mulching, or both, is very clear, as the Phlox is a great surface-rooting plant. This item cannot too strongly be emphasised, the masses



of spreading root fibres often barely covered with soil cover quite a large area. The sun's heat upon these is naturally very quickly felt, hence the greater need for the moisture, which, during the growing and flowering season at least, is of greater importance perhaps even than a large depth of soil. Briefly summed up, however, it is hardly possible during growth either to over-feed or over-water the Phlox. With these facts realised and attended to it is an easy thing to grow herbaceous Phloxes to the highest standard of excellence.

To be more definite, perhaps, and as I hope helpful to many amateurs who, I feel sure, would like to grow these plants well, I will cite an instance of my practice in this district, where the soil is light and much drained. Digging the beds as deeply as the soil permits at any time during autumn or winter, a heavy layer of cow manure is placed in more than 1 foot deep and covered with a little soil; the surface is then lightly trodden. This is done throughout the bed or borders, and to the upper surface soil a good dressing of well-decayed horse manure is added. Even with this double manuring I have on very poor soils given a surface dressing of manure to lay in position during the winter and be lightly forked in in early spring before planting. Generally I prefer spring planting, and in heavy soils particularly. In such light soils as I have just mentioned, however, the planting may be done just as well in early autumn; indeed, the plants repay it in this class of soil by their continued rooting. Where the planting can be done at this season there are two classes of plants best suited for planting out, viz., the young ones that have been rooted and potted in the spring; and, secondly, those plants that in soils where Phloxes do well appear a few inches from the main clump. The plants that should never be bedded out are those which have been starved in pots for more than a year. The only way to resuscitate such plants quickly is to shake away all the soil and give a free chance to fresh roots. Much the best plants, however, with which to form a collection are those raised from strong vigorous cuttings taken in March, rooted in a frame gently warmed, potted forthwith into rich soil in 5-inch pots, and after a month plant them in the beds or borders. Such a plant will produce one head of bloom in September or possibly earlier; the next season the same plant will carry four very handsome heads, and a year later about two dozen of bloom, providing a mass of colour nearly or quite 4 feet across. Up to this period the Phlox may be regarded as in its prime, though with plants upwards of four years old I have had even more handsome heads of flowers where the plants have received special treatment. The height to which a variety will attain can only best be judged under such good treatment. In other words, the youthful spring cutting that makes its first head of bloom at 15 inches or 18 inches high will at four years old be fully 4 feet high. Plants of this latter age, however, require some thinning of the stems, and the removal of the central ones is more or less essential. E. J.

(To be continued.)

## EDITOR'S TABLE.

### GLADIOLI FROM MESSRS. KELWAY.

Messrs. Kelway send us from their nurseries at Langport, Somerset, superb spikes of Gladioli. We have seldom seen spikes so strong and well flowered, with flowers individually of great size and beautiful colouring. The most noteworthy varieties were Edward VII., carmine, one of the

most striking of all the varieties raised of recent years; Empress of India, a rich magenta shade; Princess Royal, white, with the petals edged with rose-pink; Lord Roberts, salmon, passing to deep rose; Orme, white, splashed with pink, and Black Meg, crimson-lake. A very handsome and interesting contribution to our table.

### SWEET PEAS.

Mr. Alfred J. Baker, The Hollies, Upper Richmond Road, sends a stem of Sweet Pea bearing seven flowers. This is not usual. The flowers individually were exceptionally fine.

### FASCATED DAHLIA.

We receive from Lady Braybrooke, Hertfordshire, a remarkable example of fasciation in a Dahlia. There are two blooms joined back to back. A careful search shows that the calyx of both flowers exists, but the florets of the edge are so well brought together that the combination appears to be complete. The actual form of fasciation is not so very uncommon, but what makes it remarkable is that the two blooms are so large and perfect, while the section of the double stem forms a perfect figure of eight. The Dahlia is of a pure strong canary colour of the old florist's type and of excellent development. The joined flowers have a face diameter of  $4\frac{1}{2}$  inches and a width from face to face of  $2\frac{1}{2}$  inches.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

September 2.—National Dahlia Society's Show and Royal Horticultural Society's Meeting, Drill Hall, Westminster.

September 3.—Glasgow and Preston Shows (each two days), and York Florists' Exhibition.

September 4.—Paisley Horticultural Show (two days).

September 6.—Thornton Heath Dahlia Show.

September 10.—Royal Caledonian Horticultural Show at Edinburgh (two days).

September 16.—Dahlia Show, Royal Aquarium (three days).

September 18.—Great Fruit Show, Crystal Palace (three days).

### Future numbers of "The Garden."

A series of articles on Wall, Water, and Rock Gardening will appear shortly, Mushroom Growing, Naturalising Bulbous Flowers, Hollyhocks, the Mixed Borders at Hampton Court, Regent's Park, and elsewhere, Perennial Larkspurs, Trees and Shrubs, Sweet Violets, old and new, &c. The usual features will not be interfered with. We are pleased to see that our willingness to give advice to readers is taken great advantage of. We wish to extend this feature of THE GARDEN as being at once interesting and helpful.

**Mixed Sweet Pea seed.**—"B." only voices a complaint general this season both among amateurs and trade growers in describing the mixtures among his Sweet Peas. The trouble is too widely spread to be attributed to any carelessness among seedsmen, and is said to arise from the unusual prevalence last season of a humble bee, which is strong enough to move the keel of the flower in abstracting the honey and thus effect cross-fertilisation. I do not speak from personal observation, but the report may be useful in stimulating observation and clearing away unjust suspicion.—CHARLES E. PEARSON, *Chilwell Nurseries, Loughdam.*

**Presentation to Mr. Norman, V.M.H.**—All gardeners will be interested in a presentation that was made a few days ago to Mr. G. Norman, gardener to the Marquis of Salisbury, at Hatfield House. It was the occasion of Mr. Norman's silver wedding, and presents came from many interested in this excellent gardener's work. Mr. Norman came to Hatfield fifteen months after his marriage, and has therefore spent almost the whole of his married life in the service of the Marquis of Salisbury. Among the many presents were a silver inkstand from the

Marquis and Lady Gwenolen Cecil, with the following inscription: "Presented by the Marquis of Salisbury to Mr. G. Norman on his silver wedding, in memory of long and faithful service"; a pair of silver candlesticks from Viscount and Viscountess Cranborne, and also a pair of silver candlesticks from Mr. J. C. McCowan and Mrs. McCowan, the agent at Hatfield. It is always a pleasure to see such evidence of good feeling between master and servant. Mr. Norman is one of the best of English gardeners, as all know who have visited the fruit and kitchen gardens at Hatfield. Few growers of fruit are more skilful. Mr. and Mrs. Norman have our good wishes.

**The Hollyhock and disease.**—The treatment recommended for these beautiful plants in THE GARDEN (August 23) is not really the best. I allude especially to the liberal enrichment of the soil with manure. Owners of gardens round here complain of disease. I myself have grown Hollyhocks from seed only to lose them through disease the third year, while in the cottage gardens—some of them within 400 yards of this place—the same plants flourish magnificently year after year, and disease appears to be unknown. In these gardens manure also is unknown. The facts, which speak for themselves, have converted me. I believe the average gardener systematically overdoes the manure in growing herbaceous plants. Manure, even the strongest, if applied at the right time is undoubtedly invaluable, such as fowl manure applied to Montbretias in May or June.—BASIL LEVETT, *Wychnor, County Staffs.*

**The Wise Apple.**—I was more than gratified to read the account of this Apple by your esteemed correspondent Mr. Owen Thomas in THE GARDEN of the 16th inst., as the variety Court Pendu Plat has always proved one of the most useful varieties that one could wish to grow. Many times have I been thanked for recommending it to those unacquainted with it, and never yet have I heard a complaint. It is of handsome growth and a free cropper, and will flourish in almost any position. I always found that by keeping the growths well thinned that almost every fruit took on the rich crimson cheek so necessary to a well ordered dessert table, the flavour being very fine and size not too large. It should have a long season to mature, otherwise the fruits soon shrivel and lose their true character.—A. B.

**Shirley Poppies.**—Few things are more beautiful in the open garden than these, more especially when well placed. In our own garden this year they have given much pleasure in a mixed hardy plant border. The seed was sown in boxes in January in a cold pit, and when strong enough the seedlings were planted out in groups. As rabbits are numerous we put 2-feet wire round the groups. When they commenced to grow some small spray stakes were placed amongst them, and the wire kept them in position. When over the spaces will be filled with Cosmos. Having some growing close to my cottage, I have noticed how much more beautiful they look in early morning than later in the day.—J. CROOK.

### Two good light-coloured Roses.

In certain gardens a few Roses are disappointing. After trying many kinds we find it best to grow those varieties that will always bloom well. This is our position; consequently we have to confine ourselves to a few kinds. Among light-coloured kinds nothing is so satisfactory as Mrs. John Laing and Mme. Gabriel Luizet. They thrive quite as well in the standard form as otherwise. Every year we can depend on them to fill the basket for furnishing. Let the winter be what it may, the plants do not suffer from frost. In the autumn they are prone to mildew, but we keep this under by giving them an occasional syringing with Abol insecticide. In this way good blooms are secured in autumn, especially from Mrs. J. Laing. The flowers are charming when arranged in the house, one kind in a vase, or the two together if wished. I often think how we kill many good colours by mixing. I have a good bowl full of these two kinds on my table, and on several occasions this summer I have had much pleasure from their delicious scent.—J. CROOK.



**Chœnostoma hispida.**—Though rarely seen elsewhere, this has for many years been employed for the summer decoration of No. 4 greenhouse at Kew, so that its value in this respect must have been noted by many. It is a neat-growing plant of a sub-shrubby character, of a dense, twiggy growth, about 8 inches high and quite as much through when grown in a 5-inch pot. The tiny pale pinkish flowers are borne in such profusion that the entire plant is quite a mass of that tint. The *Chœnostoma* was introduced from the Cape of Good Hope in 1816. The plants are of easy culture in any good soil, and may be propagated either by cuttings or seeds. It is used at Kew this season for bedding purposes in the open ground, and under such treatment is highly satisfactory, the tiny blossoms, than which little else can be seen, being of a somewhat deeper hue than when produced under glass. It is employed as a carpet plant to a bed of scarlet-flowered tuberous-rooted *Begonias*, the combination being a very happy one.—H. P.

**Good Abutilons.**—Like many other popular classes of plants, the varieties of *Abutilon* are now so numerous that it is a difficult matter to make a limited selection. Of yellows the first place must, I think, be assigned to *Golden Fleece*; of the whites—and I have tried several—the best is *Boule de Neige*, which must have been grown now for something like thirty years. Languant I consider far and away the best of the rich red-tinted varieties, and a very good pink is *M. Louis Marignac*, one of the oldest of this colour. *Abutilons* not only make neat-flowering plants for the greenhouse, but, grown as tall standards, they are useful for various purposes, the raised position displaying the flowers to the best advantage, which is not always the case when grown as low bushes. Owing to the pendulous nature of the bell-shaped blossoms, these *Abutilons* form delightful roof plants, a remark that applies equally to some of the *Fuchsias*. For training on the back wall or furnishing the pillars of a greenhouse, *Abutilons* are well suited, the rapid rate at which they will cover a considerable space being in their favour for this purpose. Their propagation and cultural requirements, too, are of the simplest.—T.

**The fruit crop in Gloucestershire.**—These on the average may be classed as poor this season. The best crop of Pears seen this year were at Westonbirt on the kitchen garden walls. The stone fruits are in most gardens poor, while in others, especially if the conditions were not quite to their requirements, are a total failure. Down on the Severn Banks the Plum trees are literally burdened with fruit, so that I believe a deficiency in some localities will be made up from others. As regards Apples, they average a fair supply, although the boisterous winds during the last few days have resulted in many being felled and damaged. *Aphis* has undoubtedly during the past dry season ravaged the orchards and Rose trees of many gardens. It has been unusually active on the Plum trees, while on some Rose bushes which I have seen the *aphis* literally covered the twigs and foliage. There seems to be no better remedy than a thorough syringing with a mixture of *Quassia* chips and soft soap, this being washed off after an interval of two hours with tepid water.—JOHN DENMAN.

**Branches of trees for decoration.**—It is remarkable what a beautiful effect can be produced in entrance halls and other places by the artistic arrangement of large branches of forest trees in tall vases. This is especially the case during the autumn when the leaves of our deciduous forest trees assume their rich colour tints. Even in the summer by the different shades of green to yellow, which are always ready to one's hand, a pretty effect may be produced in all dimly lighted rooms. One of the best and most artistic arrangements of this description I ever saw was carried out by the Countess of Kennmare, at Kennmare House, Killarney. It was the first time I had seen such bold and skilful effects produced by means so simple and so conveniently available. I need only suggest how rich an effect can be produced by a tall full foliated branch of a Copper Beech

arranged in the corner of a room against rich gold drapery, or the beautiful gold and crimson of the ordinary Beech against white, or the pale gold of the common Elm against green; indeed, many positions in such rooms will suggest themselves where this form of decoration in great variety can be enjoyed. In filling such large vases, cases of zinc or tin should be provided to hold water in sufficient quantity to keep the branches fresh, say, for a week. If the rooms are fairly cool they will remain fresh even longer. After reading the above, I can well imagine many lovers of trees being shocked at the idea of anyone having any regard to the beauty and symmetry of our grand old forest trees recommending such a proceeding as this. Let me assure any such that if the work of what I may legitimately call pruning the trees is entrusted to skilful hands the trees may even be improved by such judicious thinning.—O. THOMAS.

## THE FLOWER GARDEN.

### CHRYSANTHEMUMS AT TOTTERIDGE PARK

**C**HRYSANTHEMUMS at this well-known place have so far quite equalled the expectations formed when writing of them in *THE GARDEN* of May 31 last. Between 300 and 400 plants are grown, and the selection is exclusively confined to the Japanese varieties. The question of bud selection on the occasion above referred to was considered at some length, and, in view of what was then stated, it is interesting to learn that the facts have very largely been verified. With regard to the present condition of the plants, it may be said that many of them are developing their buds rather early, but not to such an extent as to mar the prospect of a successful issue. However carefully a grower may time his buds, the weather may completely upset his calculations. Mr. Brooks has every reason to be pleased with his *Chrysanthemums*, as they embrace the best of the old sorts as well as a good proportion of the most promising of the newer introductions. In most cases second crown buds will be retained, and these are developing just now. In some cases the plants have been sent on to the third and fourth run, and the buds in these instances were in the embryonic stage on the occasion of our recent visit. The cooler and moister weather has made the plants more "leggy" than usual, but, except in the case of *Australie* and its white sport *Mme. Herrewege*, and *Mrs. J. Bryant*, with a few others, their height is no great disadvantage.

The summer quarters or standing ground for the plants is very open and exposed, especially to the north and north-west, and, in consequence, the gale which was experienced on Saturday and Sunday, July 26 and 27 last, caused serious havoc, some plants being completely beheaded, and others losing valuable shoots. During the height of the storm on the Saturday three long rows of plants were blown down. Notwithstanding all these checks and disadvantages, the plants are most promising. Lily Mountford promises well; its growth is sturdy, and the same may be said of *Mrs. G. Mileham*, a variety of which we are likely to hear more of in the ensuing season. Second crown buds were developing on plants of *W. R. Church* (the Colonial importation), *M. Chenon de Leche*, *M. Louis Remy* (a sturdy plant), *Lord Ludlow*, *Mr. T. Carrington*, and *Mrs. Barklay*. *Florence Molyneux* is grown on a single stem, the first bud being retained, and even under this system of culture the plant is tall. *Calvat's Sun* on first crown buds looks well, and the same may be said of *Mrs. J. Bryant*, which always provides a welcome piece of colour on the show-boards, and in the vases, too. All the members of the *Mme. Carnot* family of plants seem promising. *Vivian* and *Morel* and its sports are doing much better than usual; the growths have all along developed freely, and they should in consequence give good

results. The wood of all the plants is ripening well; in fact, it is thought that in some cases it is just a little too matured. D. B. C.

### LANTANAS.

LIKE the *Verbenas*, to which they are nearly allied, the *Lantanas* have been much neglected, but they seem likely to come to the front again. Those who saw the pretty group staged by Messrs. Watkins and Simpson at the Temple show could form an idea of their usefulness as pot plants, and they are equally valuable for bedding, though they are rarely seen out of doors. The dwarf yellow variety *Drap d'Or* makes a most effective bed; *Chelsea Gem*, crimson with a bronzy tint, is also good. I have seen these keep up quite a bright display throughout the summer. There are many shades of colour; for instance, pure white, lemon, yellow, orange, pink, crimson, and intermediate shades.

The *Lantana* may be grown from seed, but it is better to propagate from named varieties, as they can then be kept in distinct colours, and seedlings also vary in habit of growth. Treated in the same manner as *Fuchsias* through the winter and started in warmth early in the year, plenty of cuttings may be had and they root as easily as *Verbenas*. They require to be kept growing freely until the time for planting out, or if to be grown in pots they must be potted in a rich loamy compost and potted on before becoming root-bound. As they are of a woody nature they may be grown on from year to year until they form good sized bushes, and they will keep up a succession of bloom so long as they are kept growing freely. There are several species of *Lantanas*. Those from which we get our garden varieties come from South America; they have often been treated too much as stove plants. Warmth in early spring is beneficial, but later on they succeed well planted out or when grown in the cool greenhouse. A. HEMSLEY.

### NOTES FROM A DEVON GARDEN.

#### LILIES.

As a Lily grower in a small way I have read Mr. P. Barr's most interesting letters from Japan and Cape Town with great profit. His remarks in the issue of the 16th inst. on the parentage of *L. testaceum* particularly interested me, as this summer a natural hybrid, *L. candidum* × *L. chalcedonicum*, has flowered. Some four years ago the two parent *Liliums* were flowering very near to each other. This season a strange Lily showed bloom in a large bed of *L. speciosum*. I thought at first it was a young bulb of *L. candidum*, but the flower (only one) soon disproved that, so I asked Mr. Wallace to name it for me. This, with his usual courtesy, he did, saying it was undoubtedly *L. testaceum*. I am now eagerly looking for more bulbs to show themselves; for if one, why not many? One thing is very sure—since the seed got into the bed not a leaf showed above ground till the bulb was ready to flower. It is in such a spot that it must have been seen. It is a wonderful season for *Liliums*. *L. Henryi* has now grown to its full height, just under 7 feet, and with twenty-nine buds on the strongest stem. I heartily agree with Mr. Barr that it is "Tiger," not "Speciosum," *L. longiflorum* that have been in the same place three years (fourth blooming) are doing as well as new bulbs, and *L. auratum* plants are like trees.

#### GENERAL NOTES.

*Romneya Coulteri* has been, and is, very fine, generally seven to eight of the great flowers out. I measured one, 6½ inches across, but there have been others a good deal larger. The cold spring has suited all sub-tropical bulbs; *Calochorti* and *Tigridia* have been unusually fine and covered with bloom.

I expect the great amount of rain that we have had this summer has had a good deal to do with it, for *Gladioli* and *Hyacinthus candicans* are splendid. Roses are in full bloom, a very unusual thing here in August. If anyone has not yet invested in the three Irish Roses, *Beauty*, *Modesty*, and *Glory*, they ought to. They are lovely, hardy, very free-flowering, fast growing, and do not suffer from



mildew. I think the most beautiful of the Polyantha climbing Roses is Queen Alexandra. I can say for it all that I have said of the Irish ones, only, of course, "free flowering" in the sense of quantity of bloom, for it is not perpetual.

Is not Mr. Fitzherbert mistaken in saying that "Melia Azedarach" is evergreen? I have several trees, yet they are strictly deciduous, and I was certainly told that at Galveston, Texas, where these came from, they were not evergreen.

#### PRIMULAS.

*Primula sikkimensis* is so far perennial here that it has flowered twice. My plants (about sixteen) are quite large clumps; they are on raised ground facing north-east. I have a small collection of fifty *Primulas*, species and varieties, including *P. obconica*, which has steadily flowered all the summer; *P. chinensis*, a self-sown seedling, which stood very many degrees of frost last winter (the leaves being frozen solid), and flowered gaily from March to May, and looks like staying another winter; *P. Poissoni*, now in full flower, and *P. megaseaefolia*, which seems to like cold. A number of *Primulas* that flowered well in the spring are flowering again, including *P. rosea grandiflora*; *P. capitata* is throwing up strong flower heads. I have *P. imperialis*, but only one tiny plant, so it is to remain with *P. Forbesi* in a cold frame all next winter, going out to the Primrose patch next spring.

#### HYDRANGEAS.

It is just the right weather for *Hydrangeas*; they have been in flower several weeks, beginning with *H. stellata*, a very beautiful variety, with bright blue fertile blossoms, and large white sterile ones, turning to bright crimson with age.

Dawlish, South Devon.

A. BAYLDON.

## NOTES ON HARDY PLANTS

### POLYGONUM ALPINUM.

I DO not recollect once seeing this catalogued in any nurseryman's list, and yet it is a showy, free-growing, hardy sort, very effective in its day. It is a rather dwarf bushy plant when established, bearing a wealth of creamy white *Spiræa*-like heads of bloom. With me it does anywhere. Its only fault is that it is rather commonplace in appearance after the bloom is over. Still, it is well worth growing, being very effective in clumps in spring.

T. J. W.

### CAMPANULA RAPUNCULOIDES.

ANYONE can get a plant of this—as I did—for sixpence. If planted in the flower border it will then cost considerably more to weed out. Of all the rampant plants I know none are so difficult to eradicate. Every little purple shoot (and what hosts of them there are!) forms itself into an independent plant. Mine has wormed itself among the *Pæonies*, and now I am confronted with the alternative of letting it come up and plucking it off as it comes, which does not kill it, or of lifting the *Pæonies* and freeing them entirely of the little roots of this pest. Let me warn your readers against admitting it into any place but a thoroughly wild garden. There it will hold its own with anything, and, without a question, it is very pretty.

Woodside Park.

T. J. W.

### HARDY FLOWERS AT SHAMBELLIE, NEWABBEY.

THE dull summer seems to have well suited the bright and dry garden of Captain Stewart, and a visit paid to it at the beginning of August proved of much interest. Among the things which I noted as being in good condition and thriving well were *Heuchera brizoides*. This was the finest plant I have ever seen of this charming *Heuchera*, and the soil, which is light and with a large pro-

portion of granite grit and sand, appears to suit it remarkably well. Tall and splendidly flowered, no one need wish to see this graceful plant in better condition. The rosy flowers were large and fresh on their unusually tall stems.

#### ALSTREMERIAS.

These, again, were very fine, and the manner in which they are inclined to increase has been at times rather perplexing, especially in the case of *A. aurantiaca*. This, however, had led to a pretty feature appearing in the shape of its flowers emerging among the branches of a double yellow Scotch Rose in one of the borders. The Rose was out of flower, but the blooms of the *Alstremeria* appearing through the Rose foliage looked unusually pretty. *A. chilensis* is also quite a success in this pretty Kirkcudbrightshire garden.

#### LOBELIA TUPA.

Although not in flower, this *Lobelia*, or *Tupa*, as at one time called, was doing unusually well and was remarkably vigorous. The whole of the south-west of Scotland seems to answer well for these south-west American plants.

#### PLAGIUS GRANDIFLORUS.

One does not often meet with this quaint looking old composite, whose flowers are devoid of ray-petals, and which, when well grown, is a striking plant in the flower border, with its large golden-yellow flowers. There is a very good plant at Shambellie, though here, as in most places, it cannot be relied upon as absolutely hardy. It is, however, about three years since it was planted in the border here, and I recollect it in bloom last year. Even in favoured spots in Ireland its life is not usually a long one.

#### PENTSTEMON LEVIGATUS.

This is a capital border *Pentstemon*, which has proved to be hardy in several Scottish gardens, where its pale purple or lilac flowers produce a pleasing variety at the end of July in ordinary seasons. The granite formation appears to suit it well, as the health of the specimen at Shambellie would indicate. In my own garden, where the general character of the soil is a sandy peat, it is not nearly so long lived as there, nor does it form such healthy looking plants.

#### PHLOMIS TUBEROSA.

This, again, grows remarkably well in Captain Stewart's garden, and the appearance of these "Jerusalem Sages" is so distinct with their whorled labiate flowers that they constitute a welcome change from the plants one ordinarily sees at this season. *P. tuberosus*, an old garden plant, by the way, has dense whorls of purplish rose flowers, with a white fringe to the upper lips. A plant such as this, growing to a height of 4 feet or 5 feet, is worth having in the herbaceous border.

S. ARNOTT.

### LILIES FOR ENGLISH GARDENS.

I HAVE read with much interest Mr. Peter Barr's remarks on Lilies in your issue of the 16th inst. Some of them are so much at variance with my own belief that I feel compelled to criticise them. Firstly, his statement about *L. Henryi* being only a geographical form of *L. tigrinum*, anyone who has observed *L. Henryi* knows that if there is a distinct Lily it is this one. In only one point does it resemble *L. tigrinum*, viz., that it flowers at the same season. However, it is not worth while discussing the matter further. I only wished not to let Mr. Barr's emphatic statement pass uncontradicted. (I believe Dr. Henry found *L. tigrinum* in the same district as *L. Henryi*.) As we were the first outside Kew to import *L. Henryi*, I suppose I may take it Mr. Barr refers to us when he states "it was put into commerce as a form of *L. speciosum*." We have always catalogued it as a true species and never as a form of *speciosum*, but in speaking of it generally, to convey an idea of its habit, have used the expression "the orange-yellow *speciosum*," which is quite justifiable.

As to the form of *L. longiflorum* named *L. Harrisii*, whatever its origin it is perfectly distinct

from all other forms, and bulbs of *longiflorum* grown on in Bermuda do not obtain the same size and freedom of flowering. *L. eximium* and *L. Wilsoni* I consider identical. It is a very distinct form and has the finest flowers of any, is easily detected in growth by its broad, dark, shining foliage; the flowers are fewer in number, very long in the tube, and widely expanded at the mouth. I do not know whether this is what Mr. Barr means by *L. longiflorum multiflorum*, but I hardly think so.

Will Mr. Barr give his authority for stating that *L. speciosum Kratzeri* is a white form of *roseum* and *album novum* of *punctatum*? The former has been long known as *Kratzeri*, and considered quite a distinct plant, and the true white *speciosum* differs in many points from the Dutch *album*, which I expect originated on the Continent. It also has a yellowish white bulb. *Roseum* is a red bulb. In *album novum* we have a strong vigorous form, far superior to *punctatum*, which has almost died out, and to those who know the two forms they do not appear identical. I have never heard before that *Batemanii* was another name for *venustum*. I may be wrong in thinking my father correct in giving it specific rank, but granting that is going too far, class it as a form of *Elegans*; in bulb, shade of colour, foliage, and growth it is quite distinct from *venustum*. The full history of this Lily is given on page 177 of "Notes on Lilies," and its distinctiveness clearly established. I remember well how pleased Mrs. Bateman was when it was named after her. I am sorry that Mr. Barr did not contribute all the valuable information he now gives us last year at the time of the Lily conference. It would have added greatly to the interest of the gathering, and his many statements and theories could have been well thrashed out. Apologising for taking up so much of your space.

Colchester.

ROBT. W. WALLACE.

### LILIUM GIGANTEUM IN SCOTLAND.

AT different times a good deal has been said about *Lilium giganteum*, but still it may be of interest to many of your readers to know how this fine Lily thrives in the west of Argyll. One specimen at Achnamara, the property of Colonel Malcolm, of Potalloch, reached the height of 10 feet, the circumference round the stem at ground level 13 inches, a fact I think worth recording. At the same time at Potalloch three bulbs in a group flowered, the tallest one reaching the height of 8 feet with fifteen flowers, the other two almost as tall. They grow in a border which cannot be called shady, but fairly rich in vegetable matter.

D. S. M.

### ERITRICHIMUM NANUM.

NOTHING is perhaps more puzzling than the successful culture of this most lovely of high alpine. You may procure, no matter how promising, a specimen in a pot, and I believe I am not exaggerating when I say it is only by the purest accident the plant ever flowers and lives with us at all. I have collected *Eritrichium nanum* several times, and knowing the difficulty I have taken specimens as small as I could find, and with the best fibrous roots from both sunny or shady positions, and on one occasion I was so pleased at discovering a little colony growing in more or less disintegrated stones among small batches of humus that I emptied my knapsack to store these treasures away. The plants were planted the next day in what I considered the most suitable position, but before another year had passed hardly any *Eritrichiums* were left.

Herr Max Kolb, of Munich, a most successful grower of alpine, says the plant grows in crevices, needs little food and not much moisture; it will grow under the same treatment as, for instance, *Androsace helvetica*. Unfortunately, I cannot speak with the same confidence, excepting that I find *A. helvetica* a comparatively easy plant to manage. The plant resembles and is closely allied to our Forget-me-nots (*Myosotis*), but grows only



about 1 inch high; it is of slow growth, forming dense silky cushions. The rootstock is woody, deep growing, while the leaves are lanceolate-oblong or spatulate; the radical ones imbricate, often forming rosettes, petiolate; the cauline leaves are sessile. The young leaves are at first covered with silky hairs, which disappear as they get older. The flowers are produced in short racemes, beautiful bright blue, similar to those of the pretty *Myosotis rupicola*. No other alpine seems to me to have as much charm as *Eritrichium nanum*, and to equal it in beauty and elegance. It is a local plant, growing in altitudes of between 7,000 feet and 8,000 feet on the Alps of Switzerland and Austria. It flowers during July and August.

#### PHYTEUMA COMOSUM.

THE earliest recollection I have of this pretty and interesting alpine is from a coloured plate and a dried but well-preserved herbarium specimen. Like *Eritrichium nanum* it was then considered impossible of culture, but since I have not only successfully grown the plant both from collected plants, and still more satisfactorily raised it from seeds, with a little care it can be grown by almost everybody either in pots or on the dry part of the rockery, in crevices with only scraps of peaty soil or humus, with plenty of silver sand. It is slow growing, and only 2 inches in height. The somewhat ornamental foliage is heart-shaped, petiolate, coarsely dentate, at first deep green, later purplish; the cauline leaves are lanceolate. The pretty, interesting, and distinct flowers are capitate, comose, and blue with purplish red points. Although the genus *Phyteuma* consists of several, probably from fifteen to twenty different species, all of which are worth growing, none are as pretty and interesting as *P. comosum*. Its natural habitat is in the Alps of Switzerland and Austria, but it is very local. It also grows on the Carpathians, invariably in the most inaccessible places, usually on vertical walls of rock, hence the difficulty of collecting it with sufficient fibrous roots to ensure success. For this reason plants raised from seed are far superior. When pot grown they are quite certain to live. Some years ago I remember seeing in Dr. Neubert's *Garten Magazin* an interesting article on *Phyteuma comosum*, by the enthusiast bank director, Herr Sendtner, of Munich, who cultivated a number of these plants in pots most successfully in a back yard surrounded by five-storey high walls in the city of Munich, mentioning that these specimens had been for eleven years in his possession. It flowers during July in altitudes of 4,000 feet to 4,500 feet during July and August. On our rockworks or in pots it flowers, however, as early as June.

G. REUTHE.

#### THE EDELWEISS.

THE Edelweiss (*Leontopodium alpinum*) is perhaps one of the most popular plants of the alpine flora, and the one plant of thousands that the average mountain tourist is most anxious to discover. Interesting the plant is undoubtedly, though beyond this it possesses but few attractions from a decorative point of view. Of course its correct home is the rock garden, where it should be planted in not too rich soil, yet quite firm. The plant is seen always to good advantage if rather freely grouped in colonies in the rock garden. The plant may be grown with complete success when a few strong seedlings are firmly planted in a narrow chink of rock, so placed that a deep fissure of gritty or sandy loam may be assured for the roots to ramble in. Plants in pots may be grown and flowered when the collar is tightly wedged between some pieces of stone or old mortar. At this season of the year I have frequently received parcels of the



A COLONY OF EDELWEISS IN THE GARDEN OF THE LATE MR SELFE-LEONARD, HITHERBURY, GUILDFORD.

plant by post merely wrapped in a bit of sphagnum moss and some oiled paper, and in this way they travel well. But whether these collected plants will continue to succeed under cultivation in our lowland gardens depends as much on the way they have been lifted as upon any subsequent treatment on arrival. Assuming such plants do come to hand, and possessing a fair amount of fibrous roots, there is no better way of starting such things than by planting them not too deeply in cocoanut fibre and sand. Many plants that frequently rot, and that rapidly, when placed in soil will start new roots quite quickly when planted in this simple way: Give one good watering when planted, place in a rather shaded place and not a stuffy, ill-ventilated frame, and leave them alone for a week at least without further moisture. In this way scores of rare alpine plants have been treated after a long journey with a good deal of success. On the other hand, those who have no opportunity of obtaining plants direct from their mountain home will find seeds by far the best method of obtaining a stock. Indeed, seeds must be looked to for perpetuating the stock also, for the plant is not always a success when divided. On the other hand, it may be grown from seeds with perfect ease, and though I have grown the plant with success I am bound to say I have never been able to obtain such results as I saw a few years ago in the gardens of Pusey House, Berkshire. Here the Edelweiss was treated as a biennial, large beds being edged around with it. The plants grew with considerable vigour, making tufts of leaves over a foot high and flowering abundantly. In this way a succession of plants, to flower each year, was maintained, seeds being harvested in great quantity. The plant produces tufts of heavy or woolly leaves from which issues the flower-stem, usually not more than 4 inches or 6 inches high. The true flowers are small and inconspicuous, yellow in colour, and set as it were in a star-like whorl of woolly, oblong leaves, rendered white or nearly so by the density of the down-like tomentum that covers them. To this peculiar and interesting character the plant owes much of its popularity. E. J.

#### NEGLECTED GARDENS.—I.

A NEGLECTED garden is a miserable and depressing place, and the words have a dismal sound with

them, unless, indeed, these neglected gardens pass into the hands of genuine garden lovers; then something is sure to be done to improve them, and the words become fraught with delightful and bewildering possibilities.

There is great pleasure in planning and stocking a new garden, but there is often as much, and sometimes more, in altering and improving a garden that already exists. The neglected garden has this advantage—it will not suffer as an entirely new one would from that look of the nursery garden that is so inartistic and wanting in dignity and repose, and that takes some years to outgrow.

Now, in taking possession of a neglected garden, the first thing is to determine where to begin and what to attack. It may be that there are fine trees, but that below them an undergrowth more or less thick has grown up, and Elders, suckers of the Elms, Chestnuts, &c., and Privet, Laurel, and other quick-growing wood are detracting from the beauty of the trees themselves. This undergrowth must be greatly thinned, and every bit that is left carefully considered as to its decorative use and value. It is curious to notice how reluctant is the ordinary human being to root up and throw away a half-grown Elder tree, Laurel, or what not; but there are occasions, and this is one, when the would-be successful gardener must steel his heart, and ruthlessly use the axe and the knife for anything that is out of place and superfluous.

If it is found that the large trees themselves need a branch lopped here or there it is a good thing for the possessor of the tree to go into the house and from both an upstairs and a downstairs window contemplate exactly what will be the effect of the pruning. What unsightly object is the branch at present hiding from view? What will be the outline of the tree without the branch in question? Let the owner of the tree then stand close beside it and notice the interlaced branches and the effect of thinning them. Too many fine trees that have been neglected and received neither care nor attention for many years are made hideous objects, one-sided, and badly balanced when left to an inexperienced hand or when the pruning is done hastily and without due consideration.

One word as to the manner of going to work may not be out of place here. The branch, if it is a large one and heavy, must be sawn off some 2 feet from the trunk. The remaining 2 feet must then be removed. To leave this portion, as in nine cases



out of ten it is left, is to invite decay for the tree itself, not at once, but in the course of a few years when the portion shall have decayed, and the decay shall gradually spread to the trunk itself. In fact the removal of branches should be treated as a surgical operation.

Gardens that have been planted anything like thirty years, and neglected for the greater portion of the time, will show no more miserable feature than the shrubbery. If this has been allowed to go its own wild way one shrub will have crowded out others that may be of tenderer and more weakly growth; others, from insufficient room, may have become deformed, and most will be thin at the base and unsightly in consequence. It becomes now a serious question what to do. In most cases it will be better to remove the unsightly shrubs entirely. There is no chance of their ever being made well-proportioned specimens. Thirty years of neglect has ruined them completely. Besides this it will be found in the generality of these overgrown gardens that the admission of more light and air gained in this manner is an unmitigated pleasure and relief. A broad border for some of the most beautiful of our herbaceous plants with or without a background of newly put in flowering, evergreen, and deciduous trees may well take the place of the tangled mass that hitherto had been known as the shrubbery. In all gardening matters, and more especially when trees are under consideration, the garden should be grasped as a whole, not only treating one portion. If this were done there would be far greater harmony and character in our gardens. If, after the neglected shrubs have been removed, it is deemed more fitting to replace them with others, then care must be taken that the new shrubs are not too closely planted, that they are thinned out in due season, and that they are planted with due consideration

to their decorative effect when viewed from different parts of the garden. In some cases it will be found that the effect would be greatly enhanced if the beds were raised, say, some 3 feet from the surrounding level. Again, the garden may be badly in need of some markedly distinctive feature, and it may be found advisable to plant a large proportion of some characteristic shrub, such as the upright Cypress for instance. It is a grand opportunity to insist on introducing some such expression of individuality and character. These qualities are sadly lacking in a vast number of our English gardens, and they are among the things that I never tire of pleading for. A garden must, or it should, have some basis on which to work, some one distinctive character that shall make it stand out in the minds of those who see it as separate from every other garden. It ought to have some feature that shall show both the taste and the bent of those who love it.

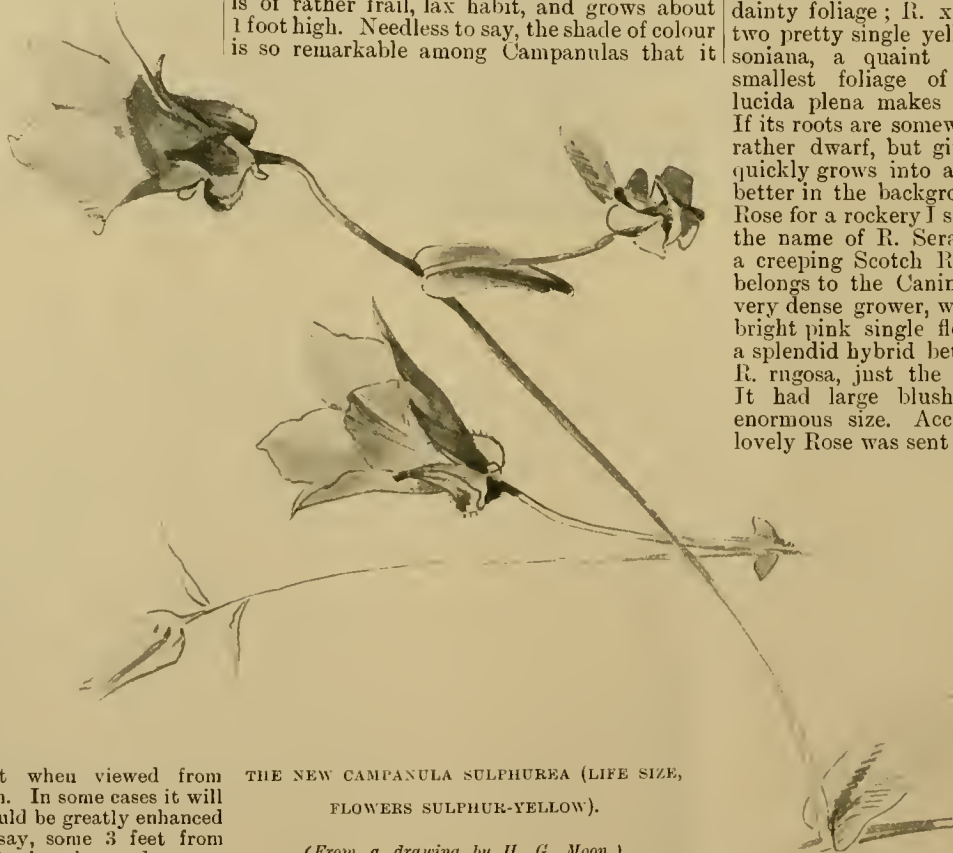
One last word of caution I would add. If the neglected garden has been badly designed, the would-be improver may go forward with little anxiety; but if the garden is of excellent design already, and suffering only from the neglect that its inhabitants in the way of trees and flowers have undergone, then the would-be improver must pause and consider carefully the effect that his

work will have on the old and good design of the garden. I have found in all questions of doubt that if people would determine that everything that is simple, and in broad, bold design shall be permitted to remain, while everything that is impossible to make beautiful, everything that is complicated, sham, and pretentious, shall be ruthlessly cleared away, they will not err.

F. M. WELLS.

## AN ARTIST'S NOTE-BOOK. CAMPANULA SULPHUREA.

OUR illustration introduces a new and interesting species of the Bell-flower family, and one that possesses quite a novel shade of colour. So far, however, as we now know, this new *Campanula* would not appear to possess a very vigorous constitution or a long season of flowering. The plant is of rather frail, lax habit, and grows about 1 foot high. Needless to say, the shade of colour is so remarkable among *Campanulas* that it



THE NEW CAMPANULA SULPHUREA (LIFE SIZE,  
FLOWERS SULPHUR-YELLOW).

(From a drawing by H. G. Moon.)

would be welcomed by all, and if a stronger and more vigorous kind can be evolved from this, retaining its colour, it will be much appreciated. It is of a sulphur-yellow, more heavily coloured, perhaps, internally than otherwise. The species is of annual duration and a native of Palestine.

## THE ROSE GARDEN.

### ROSES FOR THE ROCK GARDEN.

A ROCK garden always seems to me a suitable place for some of the interesting Rose species, and also for a few hybrids.

With the numerous alpines and other plants available, it is impossible to find space for any; but where the rock garden is upon an extensive scale certain

suitable kinds would add a great charm and be quite in harmony with their surroundings. Wherever Roses are planted upon the rock garden, a fairly deep root run should be provided, and unless this can be accomplished among the rock and stone it would be preferable to plant at the base or in the background. One could not well select a more charming tribe of Roses for the rockery than *R. wichuriana*. The type must be found there if no other; but I think all who know Jersey Beauty and Gardenia, and also the more recent rubra, will require no advice to plant one or more of each, although being so gross feeding in their habits the plants must be given ample space to develop. A warm alcove should be allotted to a few of the more tender Roses, such as the small single *R. berberifolia* Hardii, its yellow blossoms, with red blotches at base of petals, being most striking; *R. Macartney alba simplex*, a gem with white blossoms and a wealth of golden anthers, also dainty foliage; *R. xanthina* and *R. Alberti*, two pretty single yellow species, and *R. watsoniana*, a quaint little variety with the smallest foliage of any Rose grown. *R. lucida plena* makes a charming rock plant. If its roots are somewhat confined it will keep rather dwarf, but given a good deep soil it quickly grows into a large bush and is then better in the background. A delightful little Rose for a rockery I saw recently at Kew under the name of *R. Seraphini*. It appeared like a creeping Scotch Rose, although I believe it belongs to the Canina group. The plant is a very dense grower, with very small leaves and bright pink single flowers. There also I saw a splendid hybrid between *R. microphylla* and *R. rugosa*, just the kind for a rock garden. It had large blush flowers, and petals of enormous size. According to the label this lovely Rose was sent to Kew by M. Vilmorin.

In the background a position should be provided, if possible, for *R. spinosissima altaica*, where it could display its large white flowers to the best advantage. The pretty *R. alpina* is one of the earliest to open, and is succeeded by *Capsicum*-like fruit, and a variety of it named *Malyi* is good. Both would make interesting rock garden Roses.

The new hybrid of *R. sinica* named *Anemone* is one of the loveliest single Roses for creeping over a rockery, the large glistening foliage and *Anemone*-like flowers of a beautiful pink show up so well when thus grown. Where opportunity offers to plant Roses freely in the background of the rock garden varieties that make fine arching growths would be most appropriate. Of these, I could name several; but one of the loveliest is *R. polyantha grandiflora*, which is also known at Kew as *R. noisettiana*. Other beautiful species and varieties for the rockery are *R. Andersonii*, one of the loveliest of the singles; *R. californica*, *R. carelica*, *R. macrophylla*, a very strong grower; *R. involuta* var. *Wilsoni*, which has rich pink flowers with distinct white eye, the flowers being quite 2½ inches



across; *R. mollis* var. *alba vittata*, the outer petals of white buds being margined with pink. Of course, if a Rose dell could be linked on the rockery a splendid opportunity would arise for using masses of several good things in the Rose way for instance. The Dawson Rose makes a delightful picture when liberally planted, so also does *R. multiflora*, which could be grouped behind the latter. Then, too, *R. lutea* and the Copper Austrian Briar cannot be omitted; but they would form interesting groups towards the front, whilst towering in the background fine masses of the Penzance Briars would lend beauty and fragrance to the dell. Practically, the Roses for both rockery and dell are unlimited, and after all the best plan is to make oneself familiar with the interesting species and hybrids, and plant according to individual taste. PHILOMEL.

### ROSE HEDGES.

Those who have never seen a Rose hedge in a garden can form some idea of its beauty by calling to mind a hedge of Dog Roses in some country lane. But whereas a hedge of wild Roses only lasts in beauty of bloom about a month, a hedge of garden Roses, though of course at its best in June and the first half of July, may be more or less in bloom the whole summer. Where large breaks are wanted in a garden, or screens to shut off from view the kitchen garden, waste places, or yards, there can be nothing lovelier than a Rose hedge. It always seems a pity that so much space should be taken up with hedges of Laurel, Box, Yew, Holly, and Privet, which, though pleasing in the winter and just when the young growth is on them in May and June, have nothing much to recommend them the rest of the year. A thicket which nobody can walk through or see through can be made of Roses, most of which keep their leaves on till the severest frosts come, and some even throughout the winter. In addition to the blossom, we also have the red berries in the autumn and early winter, some sorts, such as Lord Penzance's Hybrid Sweet Briar Roses, producing beautiful clusters of bright scarlet berries. Roses love moisture, and for that reason do remarkably well on the banks of ditches, the natural position of wild Roses. The ground is perfectly well drained near a ditch, and yet the roots of the bushes will go near enough to the bottom of the ditch to get supplies of moisture in very dry weather. We have all seen wild Roses hanging in lovely profusion over a pond, and though the more delicate standard Roses might not grow in such a situation, the hardy sorts which are adapted for hedges revel in it.

Considerable thought must be devoted to the selection of Roses for a hedge, according to the purpose for which it is intended. If only a moderately high hedge is wanted, say, 4 feet, such as would be suitable for a terrace bank, or for breaking up a long stretch of lawn or garden without shutting off the rest from view, the lower growing sorts must be selected, such as the Penzance Briar Roses, above alluded to; the Austrian Briar Roses, with their lovely shades from yellow to copper; the Japanese Roses or *Rosa rugosa*, which are also remarkable for their brilliant scarlet fruit pods; and the China Roses, some

of which, such as the old common and the crimson, often called Monthly Roses, are seldom out of bloom from May to December.

All the above mentioned require no pruning, except the cutting out of dead and weak wood and keeping them within bounds; in fact, in the case of the Briar Roses, pruning is said to injure them. These Roses, if planted for a hedge, should be put in a double row—one in front of the space between two others—about 3 feet or less apart. The ground should be well trenched before planting, with the addition of a good dressing of well-rotted manure and basic slag, the latter at the rate of 20lb. to the 40 square yards, so as to give them a good start. Then, if kept pretty free from weeds they will go on for years without much further trouble, except the slight cutting above referred to.

Where taller hedges are wanted for screens or garden boundaries different classes of Roses must be chosen. The ground should be prepared as above described, and before planting stout poles 6 feet to 8 feet high should be fixed firmly in the ground at moderate intervals, and strong galvanised wires attached to the poles from end to end of the proposed hedge and about 2 feet apart. If the appearance of this is objected to while the hedge is growing up it may be left till the bushes have made a year's growth, when it will be a good deal covered up at once if the long shoots are tied up to the wires and poles. The sorts of Roses used for this hedge being of a more vigorous habit than those used for the hedge first described, the bushes may be planted 4 feet apart. In two years, or three years at the most, the bushes will have pretty well covered up the whole of the supports, and whenever the poles give way the hedge will probably be thick enough and strong enough to stand without them. No pruning is absolutely necessary; but it is best to cut out dead and useless wood so as to let the air into the bushes, and to keep them from blocking up walks or occupying more ground

than can be devoted to them. Some do this latter part of the work with garden shears in March as if it were an ordinary field hedge.

As to the sorts of Roses to plant for this purpose, there is now a wide choice, owing to the introduction of so many strong growing varieties or ramblers during the past few years. Some of the Ayrshires and hardy evergreen climbers are very rapid growers and very free bloomers, and are most valuable for covering up spaces quickly. Among them might be mentioned *Félicité Perpetué*, creamy white and good shape; *Elegans*, large crimson semi-double; *Polyantha grandiflora*, very strong grower, bearing large clusters of pure white flowers; *Ruga*, pale flesh, semi-double and very sweet-scented, with glossy foliage; and *Alpina*, bright rose, the leaves of which take on a fine tint in the autumn. Outside the class to which these belong are many others which are just as good for the purpose.

I would, if desired, suggest Paul's Carmine Pillar, single rosy carmine and free bloomer; *Reine Olga de Wurtemberg*, vivid red and semi-double; *Longworth Rambler*, light crimson and semi-double; *Aglaia*, or *Yellow Rambler*, bearing pyramids of fifty to a hundred flowers; *Thalia*, or *White Rambler*; *Euphrosyne*, or *Pink Rambler*; and *Turner's Crimson Rambler*, which, though only introduced in 1893, has become well-nigh universal. The last-named is extremely beautiful, but it blooms for less than a month in the year. Two other Roses, the individual blooms of which are much superior to the above, are *Réve d'Or* and *Gloire de Dijon*, which will succeed as hedge Roses if in a good position.

Rose hedges will undoubtedly become more common in the future now that there is such a wide choice of Roses suitable for forming them. I know a garden which cannot be much more than an acre in extent, but by having parts of the garden completely



HEDGE OF MAIDEN'S BLUSH ROSE 6 FEET TO 7 FEET HIGH IN THE GARDEN OF MR. WILLIAM PAUL, WALTHAM HOUSE, WALTHAM CROSS.





A RIVERSIDE GARDEN, HEDSOR WHARF, MAIDENHEAD.

shut off by Rose hedges, seems to the visitor who walks round it as if it must be two or three times the size.

ALGER PETTS.

### ROSA WICHURIANA RUBRA.

THIS interesting novelty resulted from a cross between *R. wichuriana* and *Crimson Rambler*, and I doubt if any hybrid ever showed its parentage in such a marked degree. The fine trusses of single flowers are of the rich pink colour seen in *Begonia Gloire de Lorraine*, perhaps a shade or two deeper. The foliage is of the bright green of *Crimson Rambler*, but shining as in *R. wichuriana*. I should not recommend these hybrid *wichurianas* exclusively for ground work, believing them to be worthy subjects for clambering over old trees, rockeries, or to train over a low fence. The latter position is an ideal one; the long growths soon reach the top and will fall gracefully over the other side. A rustic fence could be constructed in the garden for them. If about 4 feet high the view would not be obstructed, and when the Roses reached the ground they would continue their growth along the surface.

This new comer will be splendid for table decoration, its sprays are so light, and if gathered rather young and placed in a cool shady place in water the flowers expand freely. The rich array of golden stamens is a noticeable feature of a beautiful variety, and there is, moreover, a delicate Violet-like fragrance. *Rosa wichuriana rubra* apparently inherits the late flowering habit of the type, so that one may make quite an attractive mound of these two, the crimson variety trailing over a clump of roots in the centre, and the white variety surrounding it, and nearer to the ground.

### MME. JULES GROLEZ (H.T.)

EACH season this lovely Hybrid Tea increases its popularity, and I certainly think it is one of the most useful M. Guillot has given us. Under glass I much prefer it to Mrs. W. J. Grant, for the

reason that it retains the brightness of colour for a longer period. Then, too, Mme. Jules Grolez is of the most perfect shape, not too coarse or large, but yet quite good enough for a front row flower in an exhibition box. It is, however, as a garden Rose that the variety will be most welcome. All who see this Rose are charmed with the bright colour and beautiful shape of its buds and blossoms.

PHILOMEL.

### HEDSOR WHARF.

"Parva domus, magna quies."

#### A RIVERSIDE GARDEN.

THE old wharf house at Hedsor, a photograph of which accompanies this note, is of considerable antiquity, the first mention of it occurring in a document bearing the date 1575. Though additions to the building have been made from time to time, it still retains a quaint and old-world appearance. Facing due south, and screened by thickly-wooded cliffs from easterly gales and winds, it catches every gleam of sun, and during the winter months many little bulbs and flowers may be found blossoming in sheltered corners near the house. Here the earliest Snowdrops and Narcissi are gathered, and *Iris alata*, *I. bakeriana*, *I. Histrio*, *I. stylosa*, *I. reticulata*, *I. Danfordiae*, &c., opening in bright succession, bring on wintry days the promise of better things to come. An old Vine rambling along the front ripens every year a generous crop of small sweet Grapes, red and pink China Roses climb almost to the roof, and a large specimen of *Laurus nobilis* flourishes at the further end.

Conscious as one is of the strange feeling of peace and rest which now seems to pervade the place, it is difficult to realise that here in earlier days was a busy timber wharf, and that before the advent of railways heavily laden

barges moored alongside and discharged their cargoes of wood and stone. The hum of workmen's voices, the clang of tools, the trampling of horses' hoofs have passed away, and now the quiet lawn slopes gently to the riverside, and on still sunny days no sound is heard but the sharp, shrill cry of a kingfisher or the distant murmur of the weir.

By the still waterside numberless families of happy wild things find a sanctuary and home. Here is the safe retreat of lesser grebe, water-hen, and wild duck, who in warm July weather paddle fearlessly with their small black chicks in and out among the Water Lilies. Many turtle-doves nest in the Willows, and kingfishers flash up and down the stream or hover momentarily above the shallows.

No trace of old garden remains with the exception of a few large bushes of Monthly Roses, a straggling perennial Pea, and the small Cherry and Apple orchard, bright in spring with Daffodils beneath the trees. The Rose garden, mixed flower borders, quaintly-cut Yews and hedge are all of recent date, and a rustic

bridge crossing the clear Watercress stream leads to where a less formal garden is in process of formation. Here are Water Lily pools, masses of blue Forget-me-not, rambling Roses on arches and poles, large plantings of Day Lilies, and many varieties of Iris, so fitted to adorn—by grace of form and beauty of flower—the Garden by the Waterside.

IRIS.

### TREES AND SHRUBS FOR ENGLISH GARDENS.

(Continued from page 127.)

#### A FLOWER GARDEN IN WINTER.

I HAVE previously drawn attention in these pages to the possibility of making a new feature in gardens by setting apart a piece of ground exclusively for the cultivation of trees, shrubs, and bulbs—in short, any plants that flower or are bright with fruit or bark between, say, the beginning of November and the end of February. One might term it "an outdoor winter garden." For the purpose there would be required a well-drained piece of ground, the soil of which was fertile and open. The situation should be fully exposed to the south and west, but guarded well on the north and east sides by a thick belt of evergreen trees and shrubs. The shelter would be still more complete if the site sloped rather steeply to the south-west. Such shelter would be welcome, not only to the plants that grew there, but to those who might visit and tend them. Some of the more noteworthy trees and shrubs with ornamental barks I have already mentioned. Plants that carry their fruit into winter might



be included, such as the Hollies, especially the yellow-berried Holly; *Crategus Crus-galli* and *C. spathulata*; *Cotoneaster rotundifolia*, which is the best of all the *Cotoneasters* and frequently carries its bright scarlet berries till March; and *Hippophæ rhamnoides*, the Sea Buckthorn, whose orange-coloured fruits are borne in such profusion and retain their colour till past Christmas if the frosts are not too severe. The scarlet-fruited *Skimmia japonica* and its varieties are very ornamental during the winter months, but of these (as well as the *Hippophæ*) it is necessary to grow male and female plants together. Groups of variegated evergreens would not only help to give shelter and warmth, but would also add to the brightness of the garden. The best of them are the golden and silver variegated *Elaeagnus*, the Hollies of a similar character, and the best of the *Aucubas*, of which there are now some very fine forms; the female plants are also very ornamental as fruit bearers. *Pinus sylvestris aurea*, a variety of the Scotch Pine that turns golden in winter but is green at other seasons, and *Cupressus macrocarpa lutea* are the two best conifers of their class. Many of the variegated conifers lose most or all of their colour as autumn and winter approach.

With regard to the trees and shrubs that bear flowers between November and February, the number is not, of course, great; still, they constitute a group that is larger, perhaps, than is generally supposed. The following list, which comprises all that I can call to mind, may be useful even to those who would not intend to bring them together in one spot. Some country houses are only occupied during the shooting and hunting seasons, and these winter-flowering plants are of especial value in such places.

#### November.

<i>Arbutus hybrida</i>	<i>Hamamelis virginica</i>
Unedo and vars.	<i>Jasminum nudiflorum</i>
<i>Daphne Mezereum grandiflora</i>	<i>Lonicera fragrantissima</i>
<i>Elaeagnus glabra</i> , macrophylla, and pungens (all delightfully fragrant)	" <i>Standishi</i>

#### December and January.

<i>Chimonanthus fragrans</i>	<i>Erica carnea</i>
<i>Clematis calycina</i>	alba
<i>Crategus monogyna præcox</i>	<i>Garrya elliptica</i>
(Glastonbury Thorn)	<i>Viburnum Tinus</i>
<i>Erica mediterranea hybrida</i>	

#### February and early March.

<i>Berberis japonica</i>	<i>Hamamelis zuccariniana</i>
" <i>nepalensis</i>	<i>Prunus davidiana</i> (pink and white forms)
<i>Cornus Mas</i>	" <i>amygdalus persicoidea</i>
<i>Corylopsis spicata</i>	<i>Populus tremuloides pendula</i>
<i>Daphne blagayana</i>	<i>Parrotia persica</i>
" <i>Laureola</i>	<i>Pyrus japonica</i>
" <i>Mezereum</i>	<i>Rhododendron altaicarense</i>
" var. <i>alba</i>	" <i>dauricum</i>
" <i>oleoides</i>	" <i>nobleanum</i>
<i>Erica mediterranea</i>	" <i>præcox</i>
<i>Hamamelis arborea</i>	
" <i>japonica</i>	
" <i>mollis</i>	

#### TREES AND SHRUBS IN AUTUMN.

**Autumn Colours.**—There is a certain amount of mystery about the autumn colouring of the foliage of hardy trees and shrubs in this country. I have never yet been able to ascertain with any degree of exactness the conditions that produce the richest and brightest colours. Probably the conditions most favourable generally are provided by a good growing season—that is, a warm, moist summer—followed by a dry, sunny autumn. But it frequently happens after what one would regard as favourable seasons that species fail to colour well which one regards as very reliable in this matter. Probably one set of conditions does not suit all trees and shrubs in this respect. To produce the colouration of the leaf just before it falls certain subtle chemical changes in its composition take place. And to bring about these changes certain conditions in regard to sun-

light, temperature, and moisture are necessary. But in a climate such as that of Britain, where the seasons are never alike two years together, we can never hope to obtain the same regularity of autumnal colouring that characterises the vegetation, for instance, of the Eastern United States. Still, when all is said, we possess in our gardens a large number of trees and shrubs and climbers that are delightful in their autumnal livery of crimson, purple, scarlet, or gold. It is curious that every season we may notice species not usually conspicuous for their autumn tints beautifully coloured.

An over-vigorous, sappy growth often consequent on a wet, warm autumn, or due to too great a richness of soil, is certainly detrimental to autumn colouring. *Rhus cotinoides*, an American Sumach, worth growing for the beauty of its colours in autumn, is one of the most unfailing in this matter I know of. But young plants put out in well-trenched, heavily-manured soil will often fail to colour at all till they get older and less vigorous. The most beautifully coloured examples of this Sumach that I have seen grow in rather light sandy soil. I have frequently noticed, too, that various species of Vine (*Vitis*) when starved in pots will colour exquisitely, whilst others, planted out in the ordinary way, completely fail. I believe, therefore, when planting with a view to the production of autumnal colour, any great enrichment of the soil is neither necessary nor advisable, provided it is of moderate quality to start with.

In the following notes, brief mention is made of some of the best trees, shrubs, and climbers that colour in autumn.

**Trees.**—First among these are the American Red Oaks. Undoubtedly the best of these is a variety of *Quercus coccinea* known as *splendens* and *grayana*. This not only turns to a fine scarlet-crimson, but it retains its foliage for some weeks after the colour has been acquired—sometimes almost up to Christmas. Other good Oaks, not so certain, however, as the preceding, are *Quercus marylandica* (or *nigra*), *Q. heterophylla*, *Q. imbricaria*, and *Q. palustris*, all of which turn red. The Tupelo tree (*Nyssa sylvatica*) turns a fine burnished bronzy red. A tree remarkable for the size of its leaves, and especially for the rich golden-yellow they put on in autumn, is *Carya tomentosa*, but, like most of the Hickories, it is scarcely known in gardens. *Carya sulcata* is somewhat similar. The common Elm is usually very beautiful in the soft yellow tints of its leaves in autumn, but another Elm of more distinct aspect is *Ulmus pumila*, a low tree whose small leaves are retained till late in the year and turn golden-yellow before they fall. *Liquidambar styraciflua* has long been valued for its fading foliage of purple-red, but not so well known is the lovely yellow of the Fern-like foliage of the Honey Locust (*Gleditschia triacanthos*). The Tulip Tree (*Liriodendron*), the Nettle Trees (*Celtis*), the Zelkows, and several of the Birches turn

yellow, one of the best of the Birches being *Betula corylifolia*, which turns a rich orange-yellow.

W. J. BEAN

(To be continued.)

#### EREMURUS ROBUSTUS.

THE accompanying illustration is taken from a plant growing in Captain C. B. Balfour's garden at Newton Don. Its height is 10 feet 6 inches, and when in flower was greatly admired by all who saw it. The plant was procured three years ago from Mr. Forbes, of



EREMURUS ROBUSTUS IN CAPTAIN C. B. BALFOUR'S GARDEN.  
(From a photograph by Mr. McGregor, Kelso.)

Hawick. It did not flower the first year after planting, but made a good growth. Last year it sent up a strong flower-spike, but it got broken before it expanded. This year it came away very strongly early in the spring, and was protected by Spruce branches from late frosts and cold winds. It received a liberal supply of liquid manure during its growth, and grew very rapidly. Notwithstanding its height it did not require staking. It is growing with other plants in the herbaceous border, and had when first planted a good allowance of old loam and well-decayed cow manure. It



has not received any protection during the winter months, but, as before noted, had to be protected in the spring after it came through the ground. I consider it a perfectly hardy herbaceous plant, and well worthy of cultivation.

W.

### THE KENTISH NUT CROP.

IN a season of many disappointments it is satisfactory to note that the crop of Cob Nuts and Filberts is above the average, and if prices only keep up to a fair level growers will reap a good return. I say "if" because Nuts, like fruit, have a way of dropping in value when the supply is plentiful, and this is what the growers are afraid of just now. Not for years have the bushes been so heavily laden, and all that is wanted now is warm sunny weather to help on proper ripening.

Cobs and Filberts form an important crop in the county of Kent, though they are confined to certain districts. One might travel for miles through the Cherry-growing country in the Sittingbourne neighbourhood without seeing a plantation, and in the Weald of Kent, where Apples grow so well, Nuts are barely represented. Again, in the fertile district stretching away from Canterbury to Sandwich, where bush fruits and vegetables are grown to perfection, you may look in vain for Cobs and Filberts; but turn to the brashy hillsides round Maidstone and the sandy slopes in the neighbourhood of Wrotham and Sevenoaks you will find Cobs and Filberts growing under conditions that would be unsuitable for fruit crops generally. The system of culture is common to the county, and the methods adopted in pruning and general treatment are by no means of recent origin. Illustrations show that Nuts are not fastidious in their requirements, but give them what they want and they will go on for many years, this fact being proved by the aged specimens to be seen in Kentish plantations.

In some places Cobs and Filberts form the entire crop, and the bushes are so thick when in full foliage as to leave scarcely any space between them. Yet they do well and grow vigorously enough with the sparse manuring they get. The soil is not rich and deep, but loose, brashy, and in many places sandy. Yet it suits Nuts, and acres of land that would otherwise remain idle are profitably employed in the cultivation of this important crop. In other places the Nuts are grown as a bottom crop, the bushes being kept low, and standard Plums and other fruits are planted between them. The standards are manured and the Nuts get sufficient benefit from the dressings to keep them going, for growers know the evils of over-feeding. Soil too rich or manure too freely applied leads to rank vigorous growth on the bushes, which is useless for bearing, instead of the short twiggy shoots on which the Nuts are borne. There are advantages in growing Cobs and Filberts with standard trees, because the overhead growth of the latter affords a means of protection against spring frosts when the Nuts are in bloom. The fact that over-manuring is an evil perhaps tends to mistakes in the opposite direction, and some growers never think of feeding their Nuts at all. Others adopt the wise and medium course and give periodical dressings of wool waste or some other mild and slow acting fertiliser.

The training and pruning of Nut bushes is an art which belongs largely to Kentish growers. It is true that Cobs and Filberts are represented in many private establishments all over the country, but for the most part they grow on a free and easy principle of their own, which is all very well so far as appearances are concerned, but it does not result in the maximum quantity of Nuts being obtained. The Kentish grower does not study appearances, and it would be a great stretch of exaggeration to say that a Nut bush pruned on the orthodox system is an object of beauty. The specimen is taken in hand at an early stage and if it is intended for a low specimen a hoop is fastened in the centre and the main branches are compressed to in saucer-shape. To sum the process up in a few words the training process in all cases is to

furnish the bushes with a sufficient complement of main branches.

This done the object in pruning is to remove vigorous growths and keep the main branches furnished along their entire length with the twiggy shoots on which the Nuts are borne. On all specimens the main limbs look gnarled and ugly through frequent prunings, but they produce the class of growth wanted, and there seems hardly any limit to the time during which an established specimen will go on bearing.

Care has to be taken in pruning so as to leave sufficient catkins to distribute the pollen necessary for the fertilisation of the female blossoms, and after the process the bushes look bare and skeleton-like, but as soon as growth is completed they represent mantles of leafy verdure, and whole plantations are dense thickets of foliage. This year the caterpillar common to Nuts has played havoc with the leaves, and in many places the foliage is riddled with holes caused by the ravages of the above pest. The caterpillars are not easy to eradicate, and the method adopted by some growers is to spread tarred sheets under the trees and shake the pests on to them. The majority, however, pay little heed to the caterpillars, and, because they do not actually feed on the Nuts, they are allowed to remain. The Nut weevil is another pest which has to be dealt with, and a formidable one when represented in force, as it eats the kernels inside the Nut shells. The above method is also adopted for the destruction of this injurious beetle. Several varieties of Nuts are grown for market, but the one most commonly met with is the well-known Kentish Cob, a very hardy and prolific kind. Nuts must always be reckoned amongst the important crops of the county of Kent, as they frequently give good returns from apparently worthless soil. Prices vary, of course, according to the supply, and as this is what may be called a Nut year growers are speculating as to the effect that the quantity will have on the returns.

G. H. H.

## AMERICAN NOTES.

### SHRUBS IN AUGUST.

NOT without interest is the shrubbery, although few shrubs are now in bloom. Large fruit, looking like unripe Apples, hang on the *Xanthoceros*. This fruit contains edible seeds. We have here two of these little trees, for they grow in tree form. One of them, that covers herself in a garment of beauty every May, is twelve years old, 15 feet in height, and has never set any fruit. The other, only three years from the nursery and not over 1 foot high when planted, has several large green "Apples" upon it, and we are waiting for them to ripen in order to taste the seeds.

Many bush Honeysuckles are now displaying their bright coral beads, and the Barberries are adorned with ropes of Plum-coloured fruit. Especially pretty are the purple-leaved Barberries at this time, as the fruit matches the colour of the foliage. Of all purple-leaved shrubs this seems to me the most beautiful, with its glowing ruby, wine, and mulberry tints, and its graceful habit of growth.

Kolreuterias have never been so fine. Owing perhaps to the wet season that we have had the bloom has been unusually profuse. The flowers are in large panicle thyrses. The trees are low and spreading, tents of dark green foliage, with cool shady recesses between and beneath the branches. Now that the bloom is over it is succeeded by fruit which is almost as ornamental as the flowers, for it is in large bladdery pods of a soft sea-green colour that contrasts very effectively with the dark foliage. Altogether the *Kolreuteria* is a most beautiful little tree. The seeds germinate readily, and a number of seedlings has sprung up around the parents. In one place they have sprouted along a low ledge of rocks, where the tender young foliage is as delicately cut

as the fronds of some Ferns, which it somewhat resembles.

The fragrant flowers of *Clethra alnifolia* are now perfuming the air. The *Clethra* is a native of some of our Eastern States, and forms a compact little shrub from 3 feet to 6 feet in height. The obovate leaves are cuneate at the base, serrate, and usually  $1\frac{1}{2}$  inches in length, and the white, spicily fragrant flowers are in spikes and quite freely produced. It is usually found in damp, shady places, such as wooded swamps. Under cultivation it forms a symmetrical low bush, and gives variety to the August shrubbery. There are two species in our neighbourhood. *Clethra acuminata* is quite common in the Virginias, is a taller species than *C. alnifolia*, and is sometimes found in tree form. The leaves are much larger also, and the racemes of small white fragrant flowers are sometimes 8 inches in length.

Several species of small-flowered *Clematis* are beginning to bloom, scrambling over dead trees, large stumps, and the old stone wall that surrounds the grove, and the scarlet Trumpet Creeper riots over the palings, clothes the rock brakes with a fresh mantle of green, and ascends the old Cherry tree to the height of 20 feet, making it look like some strange denizen of the tropics, adorned with hundreds of great scarlet trumpets. The profusion of this bloom has attracted to our garden a great many ruby-throated humming birds, and it is a pretty sight to watch them darting about the creepers that hold up their deep red goblets in hospitable invitation.

An interesting group of blooming shrubs has in the centre a tall *Aralia spinosa* just coming into flower. The feathery blossoms, in large, umbelliferous panicles, give the plant an airy elegance, which makes it a worthy companion to Osbeck's Sumach (*Rhus Osbeckii*), which is the most graceful of its class. Its delicate, cream-coloured florets open a week or ten days before those of the *Aralia*.

Near by is a handsome large Chaste Tree (*Vitex Agnus-castus*) covered with its paniculate cymes of bright bluish purple blossoms. The leaves of this shrub are aromatic, resembling those of the Black Walnut, but with a more powerful fragrance. The sap of the Chaste Tree is quite poisonous, as I once found to my cost. Having a tendency to browse and nibble among my plants, I experimented with odorous twigs of the *Vitex*. A sore month was, however, the worst consequence of the taste in which I indulged.

The *Vitex* forms a shrub 10 feet or 12 feet in height, and has handsome palmate leaves and very pretty little flowers in small, showy cymes. It is not quite hardy, but though it dies down to the ground sometimes, it always springs up again and grows with great rapidity. It comes from the South of Europe. Very ornamental at this season are the large bright red hips of the Rugosa Roses, and I can even recommend them to the palate of the curious. They are as large as Crab Apples and pleasantly sweet, though rather insipid to the taste. These Roses still give us a few blossoms.

*Hovenia dulcis* is a rather uncommon little tree from Asia, the fruit of which is said to make men mad. It blooms in June in axillary and terminal panicles. The little flowers are cream-coloured, and have a perfume like that of Elder blossoms. The odd-looking fruit consists of the fleshy seed pods and thickened twigs or flower-stalks, which swell after the bloom has faded. This part is eaten, but does not seem a desirable fruit. I tried it one year, but without unpleasant results. It makes a pretty little tree and gives a dense shade, but, like the Chaste Tree, it is not entirely reliable in this climate.

Osbeck's Sumach, as it grows here, makes a slender, open-branched tree, much in the shape of the capital letter Y. It is 20 feet in height, with handsome compound leaves and beautiful, large, and upright panicles of creamy flowers. No other Sumach known to me has such showy flowers.

*Rhus typhina* (the Stag-horn Sumach) makes picturesque masses for parks and private places, and is usually seen as a low shrub, not over 5 feet or 6 feet in height. It does, however, in its native haunts sometimes attain the height of 40 feet. The pinnate leaves are from 8 inches to 15 inches



long. The twigs of this beautiful plant are covered with a velvety pubescence, like the young horns of a stag. The green flowers, in a dense terminal panicle, are not as showy as the heads of fruit, which are covered with bright red hairs.

*Rhus copallina* is the dwarf Mountain Sumach, smaller than either of the other two species, and worthy of a place in the shrubbery for its pretty green flowers, its showy crimson fruit, and especially for the very beautiful colours its foliage assumes in the autumn. All the members of this family have acrid sap, and two of them—*Rhus venenata*, which is a beautiful shrub, and *Rhus radicans*, which is a Vine—are poisonous to the touch. *Rhus venenata* often grows in the middle of inaccessible swamps, as if Nature, because of its dangerous properties, had purposely planted it where it could do no mischief. In such a situation it lights up its surroundings as with a flame when the frost has changed its foliage to a glowing scarlet mass.

One other Sumach is pretty and desirable in the home grounds. This is *Rhus aromatica*, which does not much resemble the other kinds, as the Strawberry-like leaves are trifoliate instead of pinnate, and the yellowish green flowers in small dense heads are produced early in April before the leaves. The foliage of *Rhus aromatica* is pleasantly fragrant, and, as is the case with all the Sumachs, its autumn colouring is superb.

The familiar Smoke Tree is now, I believe, called *Cotinus cotinoides* instead of *Rhus cotonoides*. It is too well known to need any description here.

DANSKE DANDRIDGE.

Shepherdstown, West Virginia, U.S.A.



AVENUE OF THE CHILI PINE (*ARAUCARIA IMBRICATA*) AT MURTHLY.

## AN AVENUE OF CHILI PINE AT MURTHLY.

*ARAUCARIA IMBRICATA* is not a tree for general planting, but the avenue at Murthly Castle is so interesting that we are glad to be able to illustrate it. In *THE GARDEN* of May 19, 1900, an interesting account appeared of the conifers at Murthly, Mr. Steuart Fotheringham, the owner, mentioning that *Araucaria imbricata* was planted in 1847, but many had lost their branches, and some were killed by frost in 1894-95. They come freely, and young ones are growing from seed.

## ORCHIDS.

### ODONTOGLOSSUMS AT THE WARREN HOUSE, STANMORE.

“A THING worth doing at all is worth doing well.” The spirit of this maxim must exist in the minds of both H. S. Bischoffsheim, Esq., the owner of this well-kept place, and his able gardener, Mr. M. Gleeson, judging by the collection of Orchids they are now forming and the general efficiency of the garden. Thoroughness in every detail is insisted on by Mr. Gleeson, and the effect is well shown in the superb condition of the Orchids.

It has been said that position is a *sine quâ non* in the culture of *Odontoglossum crispum*, and no doubt a suitable position does go far to their well-being. A happier position than that in which the *Odontoglossum* house under mention has been constructed could not well have been found. Its selection speaks volumes for Mr. Gleeson's experience and knowledge of the requirements of the plants. Both the position and structure of the house have been cleverly thought out, and the result is an ideal building—a model for

intending *Odontoglossum* growers. The house in itself is a three-quarter span with a northerly aspect. Nothing whatever obstructs the northern light, but on the south not only does the back wall serve as shade, but the house has been built the necessary distance from a group of deciduous trees, the foliage of which gives the requisite amount of shade in summer and the greatest possible amount of light during winter, consistent with what may be termed permanent shading. The surface of the ground beneath the trees is frequently watered with a hose pipe, which tends to keep the atmosphere cool, while the foliage conserves its humidity, two important factors towards the well-doing of *Odontoglossums*. So perfect is the house and surroundings, and so well do the inmates revel under the conditions imposed on them, that the owner already contemplates adding an additional length to the house of from 40 feet to 75 feet.

Although the collection of *O. crispum* at the Warren House has not yet been formed a year, the extraordinary success which has attended their culture leaves nothing to be desired. It is doubtful if better growths could anywhere be found. The vigour of the plants, the substance and size of the blossoms, and the great length of the spikes produced are really superb. No doubt the house, its position, and the cultural skill of Mr. Gleeson have proved the main essentials to success, but much is due to the Belgian leaf-mould, in which potting material Mr. Gleeson is a firm believer. Both the *Odontoglossums* and *Cattleyas*—of which a brief account will appear on a future occasion—are potted in this substance, and their excellence is a strong testimony in its favour.

Two interesting and probably new *Odontoglossums* flowered among the crispums this year, and the plants are being watched with much interest. In the one the petals are of a light golden yellow, wholly of the one shade, the sepals bear a bright reddish central blotch or rather a number of smaller blotches fused into one, while the lip is white, suggestive of crispum in size and somewhat so in shape, but differing in details of the crest and its greater length. It may prove to be a natural hybrid, with crispum as the one parent, but in its present state the second parent is extremely problematical. The other is of a decided heliotrope colour, an undoubted crispum, and a very handsome and quite distinct kind. Mr. Bischoffsheim has only formed his Orchid collection within the last two years, but he has started in the right way, with good houses and good plants, which in the hands of Mr. Gleeson

will soon attain a premier position. Among the whole of the *Odontoglossums* not one poor variety was to be seen; all were fine, and most of them exceptionally so.

ARGUTUS.

## THE KITCHEN GARDEN.

### LATE FRENCH BEANS.

EARLY in the autumn it frequently happens that we get one severe frost that entirely cripples the growth of dwarf French Beans, and if sown now on sheltered borders, no matter how well protected by walls, the growth is badly injured. Many growers may have spare sash-lights to cover the plants or place movable frames over them and protect for a time, but I would advise sowing in frames if the latter can be spared, as it is then an easy matter to get good Beans well into December if the frame is heated so that frost and damp can be excluded. I am aware it is not an easy matter to spare frames when every inch of space is devoted to housing plants, but here I would recommend such structures as low pits or small houses, as these answer admirably for this crop. When there is a fair command of heat the plants crop for a long time. Many growers who have just cleared a crop of Melons or Cucumbers at this season—middle of August—may with advantage sow dwarf Beans. Of course for some time no warmth will be required if the supply is to follow the outdoor one, as the aim of the cultivator at this date should be to get a sturdy free growth, and later on, when a little warmth is applied, the plants respond freely.

I am aware that many small growers fight shy of growing French or dwarf Beans in winter, and rightly so, as I consider forced Beans, say from November to February, are the most critical and unprofitable crop grown. I mean Beans sown at that period for a midwinter supply, but this does not apply to late French Beans sown early in or during August for a supply when the open ground crop is over. I do not give any exact date for sowing, as much depends where sown and the season, but those who have to grow vegetables largely and need ample variety will find those grown for use during that season are most valuable, as after a severe frost one misses such things as Peas, Marrows, and Beans, and there is



always a demand for choice vegetables. For this work I do not advise pot culture, as I find frames or pits give a much larger and longer supply.

I like a good grower with free leafage and what may be termed a long cropper; the small early kinds are not so good for this work—they do not yield so freely. The best I have grown is the old Canadian Wonder, Everbearing, and Progress. The last-named is a very fine Bean for late supplies, and gives a good-sized pod in addition. I prefer the two last-named to the larger Canadian Wonder.

Our method of culture is to sow in low pits and expose freely till we get cold nights. The sashes are removed entirely except in wet weather for several weeks at the start, and I have always found that the best results are obtained when the young plant is well hardened. No attempt should be made to hurry the crop, as they are not required as long as the plants in the open continue to yield. It is also important to well thin the plants. It can be seen which are the best to retain when the seedlings are well through the soil. Later on, if the soil is at all poor, they will repay a mulch of decayed manure between the roots. In dry weather or after a warm day damp the plants overhead late in the day, and when watering give liquid manure occasionally. Grown thus the plants will crop freely through October and November. After that season pot culture may be given, though I do not advise sowing this vegetable till the new year. I may add that for spring supplies, where house or pit space can be afforded, the plants are far more profitable than when in pots; indeed, two or even three crops can be taken from the same plants if the latter are given good culture.

G. WYTHES.

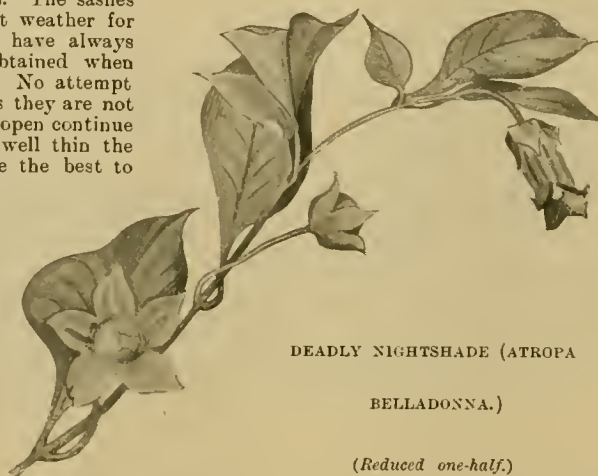
*Syon House Gardens, Brentford.*

### MOUNTAIN FLOWERS.—III.

AT 1,200 feet above the Lake of Geneva, even at its most sheltered north-eastern end, one is above the vineyards and among the rich pastures that in the earlier year are full of Pheasant-eye Narcissus. Just now their prettiest plant is St. Bernard's Lily (*Anthericum Liliago*), here and there in patches so thick that the thin heads of starry bloom are like a broken mist hanging over the grass. Two months hence the most noticeable flowers will be the Colchicums.

The steepest of the slopes are clothed with a thick forest of Spruce varied with Beech. One such stretch of mountain forest is close at hand. Where it is all of Spruce the trunks stand thick, sometimes only a foot or two apart, and the shade is so dense that nothing grows below, but where there is a little light there is Ivy and Wood Sorrel, Woodruff and Dog Mercury. Some patches of the forest are cut down every year and immediately replanted. Two such patches, perhaps 100 yards wide and three or four times as much up and down, are within an easy walk. The path is very narrow and is often crossed by the wood slides, shallow hollows going straight down hill, that allow of a stick of timber being shot down the mountain to the lower lands, and that does away with all need of forest roads for hauling. The slope is so steep that there is only width the narrowest footpath. Where this crosses the slide it is as well to take it at

a run in order to be sure to get safely across. The change of temperature from the cool black wood into the clearing is almost startling. Last night the moon wore a rain-promising halo, and a steady downpour fell in the early hours of the morning. The forenoon is cloudy, but the clouds are high. It is perfectly windless, and the soaked ground is



giving out its steamy moisture, and with it the cordial scent of earth and of the slow decay of the coniferous vegetation. The first clearing is evidently of two winters ago. It is interesting to see what is the natural growth that follows. The mountains are of limestone; in many places the solid rock comes through, and everywhere it is close to the surface. But as is so often the case in chalky places, what soil there is is excessively rich. It is a strong blackish loam, producing growths of a size and vigour that are surprising to English eyes. Thistles are 8 feet high, *Campanula Trachelium* over my head; coarse grasses also 7 feet to 8 feet; the beautiful pink *Centaury* 2 feet 6 inches; yellow Foxglove 4 feet. Other common plants of the clearing and thinner wood edge are wild Strawberry, wild Raspberry, Scabions, Columbine, and Marjoram. Of bushy things there is the handsome *Viburnum Lantana*, Dogwood, Privet, *Clematis Vitalba*, scarlet-berried Elder, weighed down with the great red fruit-clusters; Maple, Hazel, and Holly. With so many of the plants and trees that one is used to find in calcareous woodland the complete absence of Yew strikes one as remarkable.

Further along is another clearing of last winter only. In some places are thick layers of the remains of small Spruce branches, now rusty red and flattened—almost felted together—evidently from the weight of some feet of snow. Compared with the luxuriant vegetation of the two year old clearing, this one looks bare, though the young growths of a few months show that next year there will be the same rank vegetation. But here is a glad surprise in the shape of some patches of the handsome *Melittis Melissophyllum*. What a prosperous-looking plant, with its dark green

leaves of solid build and its large white rosy-blotched flowers and its hooded calyx that increases in size as the four large quickly-ripening seeds swell to maturity; while flowers are out three tiers above, seeds are ripening below, a fact that is taken advantage of for the benefit of the home garden. A few steps further and there is another plant of great interest—a bush in size—the deadly Nightshade (*Atropa Belladonna*). Its lurid purple flowers, something like *Cobaea* in miniature, look small for the size of the plant, but are made up for by the large size of the poisonous berry in its star of calyx. They are still green; later they will turn almost black, like the darkest cherries. A little way on is a large patch of something of a very bright green colour, and the ground gets damp. It is a bed of *Equisetum Telmateia*, here oddly enough rather smaller than in England. A little trickle of water comes down through the rank greenery, just audible with its pleasant little quiet tinkling sound, and here is the rosy *Lythrum*, and, brighter still, spreading patches of *Epilobium*, and Horse-mint and the Great Valerian.

Another near walk is down hill through the rich pasture to the bottom of the deep rift through which a true mountain torrent tumbles on its way to the lake. The bottom and lower sides are thickly wooded, and the path, more or less following the course of the stream, is full of the beautiful variety that can only be shown by such a mountain glen. Where there is a little more light a scramble among the trees and boulders shows quantities of *Hepaticas*. The rocky sides narrow, leaving only space for path and torrent, then they widen again, and in a bed of deep green moss there is a patch of *Pyrola*, the only other growing thing in sight upon the ground—a perfect little gem of flower and leaf, as fitly set as possible in its simple mossy bed with its background of white, black-seamed rock and grey tree-trunk, all dimly mysterious in the half light of the wooded gorge; the quiet little flower looking all the more peaceful for the dash and roar of the water that tears down among the boulders only a yard or two away.

July 28.

G. J.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### FLOWER SHOW FANCIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The reading of the article on "Flower Show Fancies" in *THE GARDEN*, August 16, brings into one's mind once more the question whether the gospel of "broad effects," so often preached, is really and truly the one legitimate form of good gardening, and whether the cultivation of a large variety of plants, so severely condemned and deplored as "scrappiness," is really the very undesirable thing it is made to appear. May not the desire and endeavour to accumulate and grow many varieties in a limited space be as legitimate as the desire for broad effects? Did space allow, no doubt all would prefer to grow their plants in masses, but where space and means deny may it not be equally right to grow a variety of individual plants as to grow a quantity of five or six? Is it a



fact that the artistic and the beautiful is the only aim for the gardener? May not the garden of many kinds be as good and as desirable as the garden of masses and colour schemes? Even the writer of the article is at times constrained to forsake the masses of Daffodils and Tulips for the "tailor's pattern book" of Messrs. Barr's rockery. I go further, might it not well be contended that interest ranks higher than mere beauty, and that what really satisfies the heart is not that which charms the eye alone, but that which goes beyond to the mind. What, after all, is the doctrine of broad effects of colour but a development of what used to be condemned in the once universal ribbon borders? Taste has changed; we no longer admire a blaze of red, blue, and yellow, yet the idea, surely, is the same, an appeal to the eye.

Must one feel wrong when one loves to add plant to plant and variety to variety? Must one sacrifice all to the god of appearances? Surely the one aim is as legitimate and as desirable as the other, and is not the real mistake to try and impose upon all one and the same ideal, rather than to allow us in our gardens that difference which is the true characteristic of nature.

Fairford, Gloucestershire.

R. H. W.

[We quite agree in one sense with our correspondent's remarks, but it is only in free groups that the true beauty of many shrubs and hardy flowers is seen. As all things in Nature are grouped, so we may follow this teaching in the garden. Mere collections are, of course, interesting, but those who love their gardens rejoice in seeing flowers grow in their own way and develop their true nature. This is impossible where everything is jumbled up in a meaningless mass. A collection of hardy flowers thrust into a border a hundred times too small to accommodate it is not beautiful.—Ed.]

## MISCELLANEOUS.

### REMOVAL OF LARGE TREES AND SHRUBS.

**P**ROBABLY no garden operation requires more time and labour than the proper removal of large trees and shrubs from one part of a garden to another. Time, as it will take two, or even three, days to remove a large tree to a distance; and labour, as the services of from eight to twelve men will be required to accomplish the work. It is not, therefore, an operation to be lightly undertaken or got through in a hurry.

Before proceeding to describe the various ways of moving large specimen plants, it will be well to consider the trees and shrubs that are generally required to be moved. Three numbered lists are given arranged according to the roots of the shrubs or trees—that is, those that, when they have stood for some time in one place, are most alike as regards the way their roots are placed together; and the lists are also some guide when transplanting, as the chances of life after removal are greatest in No. 1, less in No. 2, and considerably lower in No. 3.

#### No. 1.

Andromeda	Clethra	Rhododendron
Azalea	Kalmia	Vaccinium

#### No. 2.

Ailantus	Chestnut	Maple
Alder	Crataegus	Mulberry
Almond	Elm	Oak
Amelanchier	Flowering Cherries	Peach
Ash	Hornbeam	Plane
Beech	Horse Chestnut	Poplar
Birch	Laburnum	Pyrus
Box	Lime	Robinia
Celtis	Malus	Willow

#### No. 3.

Arbutus	Hamamelis	Rhamnus
Aucuba	Hippophae	Styrax
Bay Laurel	Holly	Tulip Tree
Carya	Liquidambar	Viburnum
Catalpa	Laurel (common)	Walnut
Cotoneaster	" (Portugal)	Yew
Diospyros	Magnolia	
Elaeagnus	Osmanthus	Coniferae
Halesia	Phillyrea	

It will be noticed that conifers are mentioned in the third list, and even in nurseries where they are regularly moved the mortality amongst them is very high; and the removal of large conifers should never be attempted except with a transplanting machine, and expert men to handle it. As a rule, it will be found cheaper and better to buy young plants than to attempt the removal of large ones that have stood for some years without root disturbance.

Such flowering shrubs as *Spiraea*, *Philadelphus*, *Kerria*, *Ribes*, &c., can be safely moved without much trouble, as they make a mass of roots which will hold a good ball of soil unless it is very dry. All are practically certain to live if carefully planted and well watered afterwards.

There are several ways of moving large trees, the simplest and quickest being by a proper transplanting machine, which consists of a framework on wheels fitted with a system of rollers and levers. For moderately-sized trees, say, to about 12 feet high, a two-wheeled machine is sufficient. This is moved by eight or ten men. For trees above 12 feet high a four-wheeled machine is required, with two, or perhaps three, horses to draw it. The first will take a ball of soil weighing from two to three tons, the latter anything to ten tons, or even more.

In preparing the tree for the small machine the ball is made round and slightly smaller than the width of the machine, a trench being cut round the tree to a depth of 3 feet or so, the actual depth depending on the roots, but the soil should be removed a foot lower than the lowest roots. On no account undermine the ball until the proper depth has been reached. A proper machine-pick is the best thing to use under the ball.

The illustration shows a tree being transplanted from one part of a garden to another. Lifting and replanting large trees is interesting, but, as I have already mentioned, must be carefully undertaken.

J.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### SOLANUMS.

**C**UT round the roots of those planted out with a sharp spade to prepare them for being placed in pots. Should the soil be dry give a liberal watering; in a week's time they may be potted up. Do not use large unsightly pots, but give ample drainage and a rich open porous soil, which should be well pressed around the roots. Afford a good watering and place the plants in a close, warm, and shaded frame. Syringe frequently

to keep the foliage fresh and to encourage root action. Plants in pots should be well supplied with manure water. Keep a sharp look out for red spider, which often attacks *Solanums* grown in pots.

#### CHRYSANTHEMUMS.

Early-flowering plants are now beginning to expand their blooms, and should be placed in a light, airy, and cool house for the flowers to open. The ventilators should be left open night and day. Thoroughly cleanse the pots before taking them inside, and the plants should be well fumigated, using XL All vapouriser, which I have found one of the safest and most effectual remedies. Should



TRANSPLANTING A TREE, SHOWING MACHINE USED.

mildew make its appearance then dust the foliage thoroughly with black sulphur. Avoid crowding the plants and give weak liquid manure frequently.

#### CALADIUMS.

As the beauty of these plants fades the supply of water should be gradually lessened, decreasing the quantity until it is entirely withheld. By this time the foliage will have died down, the pots should then be laid on their sides under the stage in the stove where they can be given water when required. The tubers should never be allowed to get very dry or they are likely to rot.

#### GENERAL WORK.

Many of the summer-flowering plants will now be passing out of flower, and this will give an opportunity of getting the houses in readiness for the autumn and winter-flowering plants, which will soon have to be brought in. Thoroughly wash the woodwork and glass, and the walls should be coated over with hot lime. When well painted the woodwork will stand a greater amount of wear and



tear, will harbour no insects, and is easily kept clean. With shortening days and cold nights it will be wise to place the lights over winter-flowering zonal Pelargoniums. Abundance of air should be given at all times, as the best flowers are obtained from strong well ripened growth. In the stove the temperature must be maintained with fire-heat. In cold and wet weather a little fire-heat may be required in the greenhouses to dispel dampness, but this must at all times be accompanied with as much air as possible.

JOHN FLEMING.

Wexham Park Gardens, Slough.

## THE KITCHEN GARDEN.

### PARSLEY.

EVERY care should be taken to ensure a constant and regular supply of this useful herb during the whole year. To make certain of this, frequent sowings and transplantings must be made throughout the summer and autumn, and though comparatively hardy means must be taken to protect it during the winter months in most parts of the country. The earliest sowings should now be cut fairly hard back to encourage young growth before too late, and young plants sown later should be thinned and pricked out a fair distance apart in cold frames. Rake the soil to within 1 foot of the glass, press thoroughly firm, keep the young plants frequently syringed till they have taken root, after which air should be admitted pretty freely, and, when the weather will allow, remove the lights entirely.

### SPRING-SOWN ONIONS.

Very much will depend on the keeping qualities of these as to the way they are harvested and finished off, and the sooner this is begun the better. Onions are exactly like fruit, they suffer in the same way through being roughly handled, consequently they require to be treated almost as carefully. After about a week the bulbs should be pulled up and laid on their sides on the ground and turned every other day till they are fairly well ripened. Choose a fine day and arrange them thinly where the air can play about them freely. On wet days they can be roped up or stored away on shelves in a cool room for use as required.

### CUCUMBERS.

Good strong plants should now be planted in the Cucumber house on a gentle hot-bed. These plants should not be allowed to commence bearing too early or they will become exhausted before the short days, and they should last well on into mid-winter. Make yet one more sowing of an approved winter fruiting variety, the old Syon House is perhaps the most reliable of any for midwinter; though small it is very prolific and the flavour excellent. Plants which are now in full bearing should receive assistance by way of frequent slight top-dressings of turfy loam, leaf-soil, and horse manure, which should be thoroughly warmed before applying, and at every other watering some farmyard liquid manure should be given. The houses and pits should be shut up quite early in the afternoon to ensure as much sun-heat as possible.

### RUNNER BEANS,

though very late, are now bearing abundantly, and making rapid growth. See that they are securely staked by placing extra strong supports to keep them in an upright position. The growths should be stopped with the shears after reaching the top of the stakes. Climbing French Beans will require to be picked daily or in a short time they become stringy and unfit for use.

E. BECKETT.

Aldenham House Gardens, Elstree.

## THE FRUIT GARDEN.

### RASPBERRIES.

THERE should be no further delay in cutting out the old bearing canes now that the fruit is gathered, and if the young ones have not been sufficiently thinned this should at the same time receive attention, care being taken not to damage the foliage of those retained for next year's fruiting.

This operation will admit of more air and sunlight amongst the selected canes, with the result of their being the better matured, and for this reason they should not be tied closely to the trellis until their foliage has fallen, but merely loosely secured to prevent injury by wind. If liquid manure is available, a good soaking with it will at this season be beneficial, particularly to old plantations that are declining in strength. Autumn fruiting kinds should have their flowering canes exposed as much as possible to the sun, and consequently kept well thinned, otherwise the fruit will not ripen satisfactorily. Such varieties as Belle de Fontenay, October Red, and Large Monthly, if carefully managed, will afford a useful supply of fruit until the frosts.

### PEACHES AND NECTARINES.

Early varieties are later than usual, but as the trees are relieved of their fruit they should be cleared of all useless wood that has carried the crop, and superfluous side growths should be shortened to their basal buds. Give the trees a thorough washing with a good insecticide, and subsequently keep them well syringed in fine weather. Bellegarde, Crimson Galande, Dymond, and other mid-season kinds should, in order to enhance their colour, have their fruits exposed, and they should also be protected from wasps and birds. The quality of the fruit of such late varieties as Violette Hâtive, Raymaeker's, and Exquisite will be much improved if the roots of the trees in dry periods are watered, supplied with liquid manure, and mulched with short litter, and this assistance is especially needful in dry, porous soils. In wet seasons mulching does more injury than benefit upon heavy soils by keeping the roots inactive, and under such circumstances artificial fertilisers should take the place of liquid manure.

### PLANTING PREPARATIONS.

The planting season being near at hand, if the necessary preparations for planting bush fruits suitable for gardens have not been accomplished they should be at once attended to. In the first place, suitable drainage, by means of ordinary tile drains, placed at least 3 feet in depth and some 24 feet apart, should be ensured, and the land trenched at least 2 feet in depth, except in very favourable positions, leaving the top spit, which is invariably the best, to prevent the roots of the trees from penetrating deeply. In necessary cases lime rubble, road scrapings, or decayed rubbish heap material may be, as the work proceeds, incorporated in the soil, and although ordinary farmyard manure should not be applied under ordinary conditions for the Apple, Pear, Plum, or Cherry at the time of planting, it may with advantage be liberally used for the Raspberry, Gooseberry, Currant, and similar fruits.

T. COOMBER.

The Hendre Gardens, Monmouth.

## SOCIETIES.

### SHREWSBURY FLORAL FETE.

ON the 20th and 21st inst. this greatest of provincial flower shows was held in the delightful Quarry Grounds. The weather was all that could be desired, and tremendous crowds attended on both days, the receipts at the gates being record ones. The fruits, plants, flowers, and vegetables were magnificent, and particularly so the Grapes. Never had finer black Grapes been seen at Shrewsbury. The White Muscats were for the most part colourless, owing, no doubt, to the useless season. The Champion Grape Cup was won by Mr. Shingler, with very large bunches, the black varieties being also well finished. Mr. Thomas Lunt, who was third, showed smaller bunches, but they were of almost perfect finish, and there were many who thought Mr. Lunt's exhibit deserving of a higher place. The decorated dessert tables were very attractive, and the fruit good.

The first prize for twenty specimen plants went this time to Mr. Cromwell, gardener to T. S. Timmis, Esq., Allerton, who deserves much credit for his magnificent plants. The cut flowers were not of extraordinary merit. Dahlias were not shown so well or so extensively as usual. The non-competitive groups were a noteworthy feature, and the vegetables were excellent. The worthy honorary secretaries, Messrs. Adnitt and Naunton, are to be heartily congratulated upon the success of this year's exhibition.

### PLANTS.

In the division for plants open to all it is questionable whether Shrewsbury has ever seen such a fine array of plants, whether regarded from the point of size or cultural

skill. The class for twenty plants brought four competitors, these in themselves making a display that can only be seen at this important function. The groups fully maintained the high position that has been held here in past years, the visitors being unstinted in their praise at the marvellous beauty of the flowers and the artistic skill shown in the arrangements.

For twenty stove and greenhouse plants, not less than twelve in bloom, the premier award went for the first time to Liverpool—to T. S. Timmis, Esq., J.P., Cleveley, Allerton (gardener, Mr. B. Cromwell). His plants throughout were noticeable for their size and perfect freshness. They were backed by Palms (*Kentia fosteriana*) at each side, with *K. belmoreana* for the centre, each about 12 feet in diameter and of a similar height; *Crotons*, of which there were five; *Mortefontaineuse*, superbly coloured; *Williamsonii*, large foliage; *Queen Victoria*, Countess, all upwards of 6 feet in diameter and well finished; *Ixoras*, which numbered six, were remarkably well flowered, the varieties being *Williamii* (two), *Coccinea superba* (two), *Pilgrimii*, *Duffii* (fine spikes), *Stephanotis floribunda*, well flowered; *Lapageria rosea* and *alba*, heavily laden with their telling blooms; *Statice profusa*, 6 feet in diameter, in robust health, and heavily flowered; *Allamanda Hendersonii*, and *Rhododendron Taylori* completed this exhibition of giant plants.

Messrs. J. Cypher and Son, Cheltenham, were second with somewhat smaller plants, but of greater variety; especially grand were *Bougainvillea Cypherii*, *Erica marnockiana* (well flowered), *Phenocoma prolifera Barnesii*, *Rondeletia speciosa major*, *Bougainvillea andersoniana*, with splendid *Statice profusa*, even larger than in the first prize lot, *Statice intermedia*, with good *Crotons*, &c., made up a grand display. Mr. W. Vause, Leamington, followed with smaller plants, in which *Ericas* were the most telling. One other collection was staged, which received an extra award.

For the group of miscellaneous plants in and out of bloom, to occupy 300 square feet, arranged to produce the best effect, Messrs. Cypher and Son easily held their own with a display arranged very artistically. It consisted of an arch in cork at the centre of the background, with *Pyramids* on either side, the summits surmounted with well-grown *Palms*. The groundwork was of *Asparagus*, *Ferns*, *Panicum*, &c., from which were arranged *Crotons*, *Ixoras*, *Lilium*, &c. The foreground was occupied with three *Pyramids*, the centre one of *Bamboos*. Other foliage plants included *Begonias*, *Asparagus*, and *Crotons*, the flowering portion being entirely *Orchids*, including *Oncidium Papilio*, *Dendrobium*, *Laelias*, *Odontoglossums*, &c. The side groups were composed of *Cucos weddelliana*, *Crotons*, *Begonias*, *Caladiums*, *Asparagus*, &c.

G. H. Kenrick, Esq., Edgbaston (gardener, Mr. J. V. Macdonald), was second with a tasteful arrangement, but lacking in quality. The chief points were *Crotons* (good in colour), *Palms*, *Bamboos*, *Ferns*, *Lilium longiflorum*, *Francia*, *Ixoras*, &c. The remaining award was secured by Mr. W. Finch, Coventry, with a group in which *Lilium*, *Tuberose*, and *Odontoglossums* were noteworthy.

For a group of ornamental foliage plants, *Palma*, *Ferns*, &c., Messrs. Cypher were again to the fore, the *Crotons* being vivid in their colouring. *Warrenii*, *Reidii*, and others were especially fine. *Palma* in variety, *Aralias*, *Begonias*, *Acalyphas*, and *Caladiums* played an important part in this very fine array.

G. H. Turner, Esq., Derby (gardener, Mr. J. Thompson), was second. His arrangement was somewhat flatter than the foregoing. The best features were fine single-stemmed *Crotons* furnished to the pot, *Begonias*, *Caladiums*, &c. G. H. Kenrick, Esq., received the remaining award.

Six *Dracaenas*: Lord Harlech, Brogyntyn (gardener, Mr. T. Lambert), was first with large well grown plants unnamed; second, Mrs. R. Darby, Adcote, Baschurch (gardener, Mr. R. Lawley), with smaller but well finished plants.

For thirty miscellaneous plants, Lord Harlech led with a pretty combination, in which *Ixoras* were well flowered; T. S. Timmis, Esq., was second with bright plants; W. J. Scott, Esq., Besford House (gardener, Mr. J. Carter), third.

Single stove or greenhouse plants in flower: Mr. W. Vause, Leamington Spa, took the lead with a well-flowered *Erica*; Messrs. Cypher second with *Statice intermedia*; Mr. W. Finch took the remaining award with *Statice profusa*.

Six *Fuchsias*: Mr. J. Jenks, Castle Fields, took the lead with small well bloomed plants.

Group of miscellaneous plants, 150 square feet: Mrs. Swann (gardener, Mr. C. Roberts) led with a well arranged combination; second, H. H. Hayhurst, Esq., Wellington (gardener, Mr. S. Brammell); third, T. F. Kynnersley, Esq., Leighton Hall (gardener, Mr. W. Phillips).

Thirty stove and greenhouse plants in pots not exceeding 10 inches: Lord Harlech led with charming plants remarkably well done, the best being *Ixora Duffii*, *J. Pilgrimii*, *Dipladenia amabilis*, and *Clerodendron Balfourii*; T. S. Timmis, Esq., an excellent second; Messrs. Cypher third.

Four *Coleus*: J. Barker, Esq., Shrewsbury (gardener, Mr. H. Worrall), led with *Pyramids*, good foliage and colour; second, Mrs. J. H. Stacey, Wellington (gardener, Mr. T. Stevenson).

Six stove and greenhouse plants: W. J. Scott, Esq., won, having good *Bougainvillea glabra*, *Stephanotis floribunda*, &c.; Mr. J. Tarrant, G. Burr, Esq., Oaklands, and Mr. A. Jones as placed.

Six stove and greenhouse plants: Lord Harlech led, having a very fine *Eucharis amazonica*, *Vinca rosea*, &c.; T. F. Kynnersley, Esq., was second, his exhibit including a huge *Hydrangea*.

Four exotic *Ferns*: T. S. Timmis, Esq., won with grand examples of *Nephrolepis roscifera*, *N. davallifolia*, *Adiantum cuneatum*, and *Microlepia hirta cristata* 10 feet in diameter; second, Mrs. J. H. Stacey; third, W. J. Scott, Esq.

Six *Caladiums*: T. S. Timmis, Esq., was again to the fore with a grand lot, beautifully coloured; second, H. H. Francis Hayhurst, Esq.; third, R. A. Newill, Esq. (gardener, Mr. W. Ashwood).

Twelve table plants: T. S. Timmis, Esq., led with brilliant coloured *Crotons*, *Aralias*, &c.; J. E. Waterhouse, Esq., Prestbury, Macclesfield (gardener, Mr. A. H. Hall),



second; T. Corbett, Esq., Impney Hall, Droitwich (gardener, F. Jordan), third.

Six double Geraniums: The winners were Messrs. R. Taylor, E. S. Godsell (gardener, Mr. W. Payne), and J. Tarrant.

Four Begonias: Messrs. W. J. Scott, R. Taylor, and J. Tarrant were the prize takers.

In the open class for three double and three single flowering Begonias, Messrs. B. R. Davis and Sons, Yeovil, won with very fine forms; R. Taylor, Esq., second.

#### CUT FLOWERS.

For a display of floral arrangements, Messrs. Jones and Sons, Shrewsbury, were first. They had a number of beautiful arrangements, notably a harp of Eucharis, white Lilium, &c., vases and baskets of Carnations, Roses, &c. A silver cup, given by the Shropshire society in London goes with this prize.

Mr. H. Hayward, Kingston-on-Thames, was first for ball and bridal bouquets; Messrs. Jones and Sons a good second; and Mr. J. Derbyshire, Altrincham, third.

For a similar exhibit (Orchids excluded), Mr. W. Treseder, Cardiff, was well first; Messrs. Jones and Sons second. Mr. W. Treseder was first also for a shower bouquet of Cactus Dahlias and for one of Roses. Mr. J. Derbyshire was second in the latter class. Mr. Treseder also won for a stand of Cactus Dahlias, Messrs. Keynes, Williams, and Co., Salisbury, second.

Messrs. Jones and Sons were first for buttonhole bouquets and ladies' sprays.

For a collection of hardy perennials, Messrs. Harkness and Son, Leeming Barr, was first with a bright display of good things; second, Messrs. Isaac House and Son, Westbury-on-Trym, Bristol; third, Messrs. Gibson and Co., Bedale.

For a collection of Cactus Dahlias, Messrs. Keynes, Williams, and Co., Salisbury, were first, with some lovely flowers, well arranged; second, Messrs. Jones and Sons, Shrewsbury, with very good flowers; third, Messrs. W. B. Rowe and Son, Worcester.

For a collection of Dahlias, any varieties, Mr. W. Treseder, Cardiff, was first; his double varieties were very fine; second, Messrs. Keynes, Williams, and Co., Salisbury; third, Messrs. Jones and Sons.

Collection of Carnations and Picotees: First, Messrs. Thomson and Co., Sparkhill, with a beautiful lot; second, Messrs. M. Campbell and Son, High Blantyre; third, Messrs. Blackmore and Langdon.

Twenty-four bunches of hardy flowers: First, Mr. Wakefield, gardener to Miss Humberston, Chester; second, Messrs. Isaac House and Son, Westbury-on-Trym; third, Messrs. Gibson and Co., Bedale.

Thirty-six Gladioli: First, Messrs. Harkness and Co., Leeming Barr; second, Messrs. R. Harkness and Co., Hitchin.

Twenty-four Roses: First, Messrs. R. Harkness and Co., Hitchin; Messrs. D. and W. Croll, Dundee, being a good second; third, King's Acre Nursery Co.

Twenty-four blooms show Dahlias: First, Messrs. Campbell and Son, Blantyre, with a splendid lot; Mr. S. Mortimer, Farnham, Surrey, was a good second; third, Mr. W. Treseder, Cardiff.

For twelve show Dahlias (nurserymen excluded), Mr. S. Cooper, Chippenham, was first; Mr. T. Jones, Ruabon, second; and Mr. W. E. King, Bodenham, Leominster, third.

Twenty-four Cactus Dahlias: First, Mr. S. Mortimer, with some beautiful flowers; second, Messrs. Vernon and Barnard, Willaston, Cheshire; third, Messrs. Keynes, Williams, and Co., Salisbury.

In a similar class (nurserymen excluded), Mr. W. E. King was first, showing well; second, the Hon. Mrs. E. Kenyon, Maesfen; third, Mr. T. Cooke, Bicton.

Special prizes were offered by Messrs. Jones and Sons, Shrewsbury, for Dahlias; by Mr. Robert Sydenham, Tenby Street, Birmingham, for Sweet Peas; and by Mr. Henry Eckford, Wem.

#### FRUIT.

The first prize for a dessert table decorated with plants in pots, cut flowers, and foliage was won by Mr. J. H. Goodacre, Elvaston Hall Gardens, with a grand display. This exhibit obtained 121 points. The Grapes, Muscat of Alexandria and Muscat Hamburg, were very fine; and Pear Triomphe de Vienne, Peach Royal George, Apple Ribston Pippin, Nectarine Elruge, the Melons, and, in fact, all the dishes were of great excellence. The floral decoration was of Montbretias, Francoas, Heuchera, Gypsophila, and grasses in the large glasses, Selaginella and Asparagus forming a delicate and effective draping. For beauty of foliage and flower 7 points were given, 8 for harmonious blending of colouring, and 8 for general arrangement for effect.

Mr. G. Mullins, gardener to Lady Henry Somerset, Ledbury, was second. His table was arranged very much like the first prize one; it was not, however, so well filled. The number of points obtained for this was 111. The Grapes were not so good, but Nectarine Dryden, Apricot Moor Park, Melon Countess, Peach Barrington, and Nectarine Stanwick Elruge were very fine. The floral decorations, though almost identical with those of the first prize table, were hardly so well done.

Mr. J. McIndoe, Guisborough Hall Gardens, was third. The Peaches, Apple Washington, Pears Souvenir du Congrès and Triomphe de Vienne, Nectarine Stanwick Elruge, and Melon Best of All were the best dishes. Francoa, Heuchera, Acacia, and Asparagus were used in the decorations. Mr. McIndoe obtained 109 points. Mr. R. Dawes, Temple Newsam Gardens, was fourth, gaining 100½ points; and Mr. S. Bremmell fifth, with 83½ points.

#### GREAT GRAPE CLASS.

The silver champion cup (value fifty guineas, to be won three times) and the first prize for twelve bunches of Grapes was won by Mr. W. Shingler, gardener to Lord Hastings, Melton Constable, Norfolk. This exhibit obtained 105½ points out of a possible 112. A bunch of Gros Maroc obtained the full points. The Muscat of Alexandria were

somewhat greasy and unshapely, but the black Grapes were splendidly finished, while the bunches were enormous, those of Alnwick Seedling were huge, as also were those of Alicante.

The second prize, together with a special prize presented by Messrs. Wm. Wood and Sons, Limited, was won by Messrs. D. and W. Buchanan, Kippen, Stirling. Their produce obtained 93½ points. These Grapes were all of splendid finish, one of Alnwick Seedling obtaining the maximum points, and one of Muscat of Alexandria and Alnwick Seedling losing only by half a point. The bunches of Alicante were huge but the berries small.

The third prize was won by Mr. Thomas Lunt, Keir House Gardens, Dunblane, N.B., whose bunches, although of almost perfect finish, lacked the size of those previously named. No less than four obtained the maximum number of points, viz., Black Hamburg (twice) and Mrs. Pince (twice). The Madresfield Court and Muscat of Alexandria were very good also. They obtained 95½ points.

Mr. J. H. Goodacre, Elvaston Castle Gardens, was fourth, gaining 93 points. Madresfield Court and Muscat Hamburg were best represented.

The three prizes for decorative arrangements in this class were awarded as follows: First, Mr. A. Coates, gardener to Colonel Platt, C.B., Goringog, Wales, who was sixth for Grapes. Mr. G. Mullein won the second prize for decoration, and Messrs. Buchanan took the third.

For sixteen dishes of fruit, Mr. F. Jordan, Impney Hall Gardens, Droitwich, was first with an admirable exhibit. The Madresfield Court and Black Hamburg Grapes were excellent; the Muscats slightly green. Melons Hero of Lockinge and Frogmore Scarlet were good, Lord Napier Nectarine, Apricot Large Early, and Peach Violette Hative were excellent. Mr. J. H. Goodacre, Elvaston Castle Gardens, was second. Madresfield Court and Muscat Grapes were very good. Marguerite Marillat Pear was a splendid dish, and Nectarine Lord Napier and the Nectarine Peach good; third, Mr. R. Dawes, Temple Newsam Gardens, Melon Temple Newsam Hybrid, Peach Dymond, and Pear Clapp's Favorite being the best dishes; Mr. R. Cairns, Bahruderry Gardens, Dundee, was fourth.

The prizes for decoration in this class were awarded as follows: First, Mr. Jordan, very few flowers, Asparagus effectively used; second, Mr. Goodacre, with Francoa and Ferns; third, Mr. J. McIndoe, who used Orchids and Ferns. Mr. McIndoe was fifth for fruit.

For a collection of twelve dishes of fruit: Mr. J. Jones, York House Gardens, Great Malvern, won the first prize. The best Grapes were Gros Maroc, and Nectarine Violette Hative, Pear Doyenné Boussoch, Peach Violette Hative and Stirling Castle were very good. Mr. G. Hall, Melchet Court Gardens, Romsey, was second. The Grapes were of good quality, the Melons good; but the remaining fruit rather small. The third prize fell to Mr. T. Bannerman, the Gardens, Rugeley, Staffordshire, who had good Peaches and Melons.

The prizes for decoration in this class were awarded thus: First, Mr. J. Jones, who used Gypsophila, Cypripedium, a few Carnations, and a draping of Selaginella; Mr. G. Hall was second, using Smilax for draping and Montbretias in the glasses; third, Mr. T. Bannerman, who had white Roses and Asparagus.

For a collection of nine dishes: Mr. J. Langley, gardener to the Rev. T. M. Bulkeley Owen, Tedsmore Hall, West Fenton, was first. He showed good Madresfield Court Grapes, Hale's Early Peaches, and Early Rivers' Nectarine. Mr. W. Dawes, gardener to Lord Trevor, Brynkinalt, was second, showing good Appley Towers Grapes, Peaches, and Nectarines.

The first prize for decoration was given to this exhibit. A white Dipladenia and Gypsophila were used in the glasses, and Smilax sparingly on the table. The second prize for decoration went to Mr. H. Hueter, gardener to J. B. Wood, Esq., Ludlow, who used small Croton plants, Cornflowers, and Gypsophila. Mr. Wilkins, gardener to C. F. K. Mainwaring, Esq., Ellesmere, was third for the collection of fruit, and also for decoration; Mr. J. Bremmell, gardener to H. H. F. Hayhurst, Esq., Wellington, was fourth.

Four bunches of Grapes: First, Mr. T. Lambert, gardener to Lord Harlech, with very good Madresfield Court and large, somewhat green Muscats; second, Mr. J. H. Goodacre, with fine Muscat Hamburg, and good Muscat of Alexandria; a good third, Mr. W. Be, Lockinge Gardens.

For two bunches of Black Hamburg Grapes: Granville Farquhar, Esq., Cholmondeley Castle, was first with finely coloured bunches, whose berries were rather thick; second, Mr. Thomas Lunt, with highly-finished smaller bunches; third, Mr. T. Lambert.

Mr. T. Lunt was first for one bunch of Black Hamburg Grapes, showing a bunch of perfect finish; Mr. Goodacre was a good second; and Mr. G. Hall, Romsey Gardens, Hants, third.

Two bunches of Madresfield Court: First, Mr. W. Shingler, with grand examples; second, Mr. G. R. Fielder, North Myms Park Gardens, Hatfield; third, Mr. A. H. Hall, Collar House Gardens.

Two bunches Alicante: First, Mr. W. Shingler, with very large, well-finished bunches; a good second, Messrs. D. and W. Buchanan, Kippen; third, Mr. A. H. Hall.

Two bunches of Gros Colman or Gros Maroc: First, Mr. W. Shingler, with grand Gros Maroc; second, Mr. C. Wilkins, Oteley Gardens, Ellesmere; third, Mr. T. Lambert.

Two bunches of Muscats: First, Mr. A. H. Hall, with good sized bunches splendidly coloured and finished; second, Mr. F. W. Everett, Tal-y-Cafn, R.S.O., with larger bunches, but very green; third, Mr. W. Fyfe. The first prize bunches were much superior to the others.

One bunch Muscat: First, Mr. W. Fyfe, with a large and somewhat green bunch; second, Mr. C. R. Fielder; third, Mr. James Inglis, Douglas, Isle of Man. The Muscats on the whole were very green.

Two bunches any other white Grapes: First, Mr. A. H. Hall, with very good Chasselas Napoleon; second, Mr. A. Child, Daventry Gardens; third, Mr. R. Lawley, with Buckland Sweetwater.

Six Peaches: First, Mr. J. Wilkes, Creswell Gardens, Stafford, with grand Bellegarde; second, Mr. J. Jones, gardener to Mrs. F. Need, Malvern, with good Stirling Castle; third, Mr. R. R. Grindod, Whitfield Gardens, Hereford.

Six Nectarines: First, Mr. W. Phillips, Leighton Hall Gardens, with very fine Pine-apple; second, Mr. J. Jones, with Violette Hative; third, Mr. F. Jordan, Impney, with splendidly coloured Stanwick Elruge.

Six Apricots: First, Mr. Robert Grindrod, with grand Early Red; second, Mr. E. Clark, Wistow Hall Gardens; third, Mr. Jordan.

Green flesh Melon: First, Mr. George Davies; second, Mr. B. Ashton; third, Mr. F. J. Clark.

Scarlet flesh Melon: First, Mr. F. Jordan, with fine Gunton Scarlet; second, Mr. R. Lawley; third, Mr. F. J. Clark.

White flesh Melon: First, Mr. W. Pilgrim, Anglesea, gardener to Sir G. Mayrick, Bart., with Hero of Lockinge; second, Mr. C. Ritchings; third, Mr. G. Hall.

The chief prize winners in the classes for Plums were Messrs. S. Bremmell, James Davies, J. H. Goodacre, and J. McIndoe.

For Cherries, Mr. A. Ruddock, Bangor; Mr. W. Powell, Addleston; and Mr. Davies, Leominster.

#### VEGETABLES.

These were staged in very fine quality. This section is enhanced in value by the generous support of the leading seedsmen, who offer in many cases liberal prizes for collections and single dishes.

In the class for nine distinct kinds (prizes presented by Messrs. Sutton and Sons), R. W. Hudson, Esq., Marlow (gardener, Mr. J. Gibson), held the post of honour, showing very good Celery Sulham's Prize, Cauliflower Autumn Mammoth, Leek Prizetaker, Tomato Eclipse, Onion Ailsa Craig (very fine), Carrot Intermediate, Pea The Gladstone, Potato Supreme, and Scarlet Runner Best of All; second, Lord Aldenham, Elstree (gardener, Mr. E. Beckett), Cauliflowers and Tomato Perfection being excellent; third, Earl of Lathom, Ormskirk (gardener, Mr. B. Ashton).

For nine distinct kinds (prizes presented by Messrs. J. Carter and Co.), R. W. Hudson, Esq., again had the premier lot, in which Carter's Autumn Giant Cauliflowers, Ivory White Celery, Perfection Carrot, Jubilee Runner Beans, and Perfection Tomatoes were excellent. Lord Aldenham was second, and the Earl of Lathom third.

For twelve kinds (prizes given by Messrs. R. Smith and Co.), Mr. R. A. Horspool, Ruabon, held the coveted position, his Celery, Leeks, Beet, and Carrots being amongst the best. T. Corbett, Esq., Impney Hall Gardens, followed, and Mr. G. Davies, Pool Parva, was third.

For a collection of eight kinds (prizes presented by Mr. Edwin Murrell), the leader proved to be Captain H. L. Butler, Shotton Hall (gardener, Mr. J. Birch), with fair specimens; J. B. Akroyd, Esq., Chalfont Park, Bucks (gardener, Mr. R. C. Townsend), was second; H. H. Francis Hayhurst, Esq., third.

For six kinds (prizes presented by Mr. E. Murrell), Mrs. James Cock, Ridgbourne (gardener, Mr. E. Clowes), was to the fore with good Onions; second, Mrs. C. Guise, Hadnall; third, Captain T. A. M. Dickinson, Wem (gardener, Mr. G. Gilbert).

For eight kinds (prizes presented by Messrs. Webb and Sons), Lord Aldenham (gardener, Mr. E. Beckett) led with a fine lot. Carrot Prizewinner, Cauliflower Early Mammoth, Celery Giant White, Onion Masterpiece, Potato Progress, Tomato Sensation, Runner Bean New Exhibition, and Pea Talisman were excellent; second, Sir Alexander Henderson, Bart., M.P., Faringdon, Berks (gardener, Mr. W. L. Bastin), with grand Runner Beans Webb's Eclipse and Onion Ailsa Craig; third, Earl of Lathom.

For a collection of twelve kinds, the Right Hon. Lord Aldenham was to the fore with an exhibit, in which Parsnip Maltese, Cauliflower Early Autumn Giant, Onion Ailsa Craig, and Pea Telegraph Improved were the best; the Earl of Lathom was second with good Cauliflowers Carter's Early Giant; the Right Hon. Earl of Carnarvon, Newbury (gardener, Mr. W. Pope) was third.

For a collection of nine kinds, the winners were: First, J. H. Lees-Milne, Esq., Ruyton Park (gardener, Mr. J. Hay); second, J. B. Wood, Esq.; third, Captain H. L. Butler.

Two varieties of Potatoes (prizes presented by Mr. R. Sydenham), Sir W. Honyman, Bart., took the lead with Satisfaction and Up-to-date. For eight Onions, Colonel O. R. Middleton, The Chase, Ross (gardener, Mr. W. Leith), led with Excelsior of good size. For eight Tomatoes, the Earl of Carnarvon won with fine formed fruits of Pulegate.

For six Turnips, Mr. R. A. Horspool was first. For three sticks of Celery, Colonel O. R. Middleton was first with Bibby's Defiance. For six Parsnips, the same exhibitor was first with Hollow Crown, and also won for six Carrots.

For three Cauliflowers, Sir W. Honyman, Bart., was first, with good heads of Veitch's Autumn Giant. One dish of Runner Beans, Mr. R. A. Horspool was first with Ne Plus Ultra; and for two dishes of Peas the same competitor won with Duke of Albany and Gradus.

For one dish of Peas, Mr. E. Cumberbatch, Silverdale, was first with Gladstone. For six Onions, Mr. G. Davies won. Two Cauliflowers, G. F. Ward, Esq., with fine heads. Nine Spring Onions, Lord Aldenham won with good Ailsa Craig. Nine Autumn Onions, Earl of Lathom was first with heavy specimens. Four Carrots, Colonel O. R. Middleton was first. Four Parsnips, the Hon. Kenyon Stanleigh, M.P., was first. Three heads of Celery, Sir Colley, Scotland, with solid specimens. Two Cauliflowers, E. A. Young, Esq., was first with Eclipse.

For Runner Beans, Mr. D. Breeze was first with a good lot. French Beans, C. T. Weatherby, Esq., Addleston, Surrey, first. Dish of Peas, Mr. J. Weston, first. Two Cucumbers, first, Lord Aldenham, with Stourbridge Gem. Six Potatoes, first, J. C. Waterhouse, Esq., with grand fruits. Six Potatoes, first, the Right Hon. Earl of Lathom with well-shaped Sutton's Ideal out of fifty-three competitors.



## NON-COMPETITIVE EXHIBITS.

Messrs. Webb and Sons, Wordsley, Stourbridge, had a bright and extensive display. The centre of their group consisted of Gloxinias, well-grown and well-flowered plants, whilst on either side of them were banks of miscellaneous hardy flowers, amongst which Hollyhocks were conspicuously fine. A collection of splendidly-grown vegetables was also shown by Messrs. Webb.

Mr. Edwin Murrell, Portland Nursery, Shrewsbury, had an excellent exhibit of cut Roses, the blooms were both bright and fresh. Niphetos and Perle des Jardins were represented by free masses, and besides numerous Hybrid Perpetuals there were such good garden Roses as Dorothy Perkins (new, a lovely pink rambler), Mme. Lambard, Ard's Rover, Longworth Rambler, General Jacqueminot, Mme. Abel Chateau, &c.

Messrs. Dicksons, Chester, showed a very bright group of hardy flowers, in which Phloxes were particularly fine. Kniphofias, Gladioli, Romneya Coulteri, Carnations, Pentstemons, &c., were also very good.

Messrs. Dobbie and Co., Rothesay, had an extensive exhibit that comprised a grand display of Violas, for which this firm is famed, an excellent lot of Sweet Peas, Dobbie's Marigolds, and a representative collection of Potatoes of about seventy dishes.

Messrs. James Veitch and Sons, Limited, Chelsea, arranged an extensive group of choice stove flowering and foliage plants. From a groundwork of Ferns and other greenery, specimen Dracaenas, Alocasias, Aralias, Crotons, and Nepenthes were irregularly arranged, the whole forming an exceedingly effective display. A good plant of *Caryota Alberti* was in the centre, and in front of it a group of Orchids in flower. Some of the most notable specimens in the group were *Roupala corcovadensis*, *Acalypha hispida*, *Aralia elegantissima*, *Acrostichum viscosum*, *Crotons Prince of Wales*, *Reidii*, and *Dracaena Douceti*.

Mr. John Russell, Richmond, Surrey, showed a group of miscellaneous stove plants that contained well-grown Crotons, Alocasias, Palms, Caladiums, and Dracaenas of the best variety.

Messrs. William Bull and Sons, 536, King's Road, Chelsea, exhibited a group of choice stove plants, consisting chiefly of Crotons *Reidii*, *Flamingo*, *Aigburth Gem*, and others, *Dracaena Victoria*, and Caladiums in variety. *Polypodium irioides ramocristatum* and *Anemia rotundifolia* were two notable plants included.

Messrs. Geo. Jackman and Son, Woking Nursery, Surrey, showed hardy flowers very extensively. Cactus, Pompon, and double Dahlias were included, and Gladioli, Kniphofias, Eryngiums, Pyrethrums, and many more were well shown.

Mr. Maurice Prichard, Christchurch, Hants, in his group of hardy flowers had some splendid Kniphofias, *Montbretias*, Gladioli, *Lobelia cardinalis*, Veronicas, Phloxes, &c.

Messrs. Jones and Sons, Shrewsbury, showed a pretty lot of Sweet Peas and Liliiums, very tastefully arranged with suitable greenery, *Asparagus Sprengeri*, Ferns, &c., making a very pleasing display.

Mr. S. Mortimer, Kewledge, Farnham, Surrey, exhibited a specimen lot of Dahlias, both Cactus and double varieties. Particularly fine were Mrs. H. A. Needs, Mrs. J. J. Crowe, Mrs. Clinton (new), Mrs. James Bailey (new), all Cactus sorts; and of the doubles, some of the best were Mrs. C. Noyes, Mrs. Foster, Mrs. Kendal, Professor Fawcett, and Rosamund.

Hobbies, Limited, Dereham, had a large display of Roses, Dahlias, Sweet Peas, Gloxinias, Cannas, &c., all well arranged and forming an attractive exhibit. There were mounds of Crimson Rambler Rose, almost surrounded by vases of Teas, Hybrid Teas, &c., at one end of the display, and Dahlias in many excellent sorts at the other. Mounds of Cannas flanked a central group of the Sweet Pea Dorothy Eckford.

Messrs. Richard Hartland and Son, The Lough Nurseries, Cork, showed a collection of tuberous Begonia blooms in many grand varieties, as well as spikes of Gladioli.

Mr. Henry Eckford, Wren, exhibited a beautiful display of Cactus Dahlias, nicely set up in vases, with suitable greenery.

Messrs. John Peed and Son, West Norwood, London, S.E., had a display of blooms of single and double tuberous Begonias; the singles were especially fine.

Messrs. W. and J. Brown, Stamford and Peterborough, showed a miscellaneous lot of flowers, that comprised Carnation Pride of Peterborough, *Heliotrope Lord Roberts*, garden Roses, zonal Pelargoniums, &c.

Mr. Robert Brown, Warton, Camforth, showed an extensive collective of Sweet Peas. Many of the best varieties were well represented, but the flowers were much crowded in the vases.

Sweet Peas were also extensively shown by Mr. John Derbyshire Hall, Altrincham.

Messrs. Jarman and Co., Limited, Chard, made a pretty display with Sweet Peas, Roses, and Dahlias (Cactus, Pompon, and double varieties). A collection of vegetables was also shown by Messrs. Jarman.

Mr. J. H. White, Worcester, exhibited hardy flowers extensively. Notably good were the Gladioli, Hollyhocks, *Hedychiums*, Phloxes, &c. Several good Cactus Dahlia blooms were included.

Messrs. Prichard and Sons, Shrewsbury, showed dwarf Japanese trees and Fern balls in a variety of shapes.

Messrs. B. R. Davis and Son, Yeovil Nurseries, showed a grand lot of tuberous Begonias in pots. They made a splendid display, both double, single, and crested sorts were shown, and the plants were well flowered.

Mr. F. Davis, Woolas Hill, Pershore, showed a group of very fine tuberous Begonias, the double blooms were some of the best in the show.

Leopold de Rothschild, Esq., Gunnersbury House, Acton, London (gardener, Mr. James Hudson), exhibited a beautiful lot of Nymphaea blooms very prettily arranged amongst their own foliage. Some of the flowers were very fine. *Nymphaea Marliacea chromatella*, *N. m. albidia*, *N. odorata rosacea*, *N. ellisiana*, *N. lucida*, *N. tuberosa*, *N. Robinsoni*, *N. gloriosa*, *N. stellata* (Berlin variety), *N. stellata*

*pulcherrima*, and *N. s. Miss Ward* (new, a beautiful rose colour) were also very fine. *Nelumbium speciosum*, grown out of doors, and numerous water-loving plants were arranged as a background.

Messrs. Blackmore and Langdon, Tiverton Nursery, Bath, had an excellent display of tuberous Begonias in pots, the double blooms being very fine.

Messrs. Richard, Smith and Co., Worcester, exhibited a very good group of miscellaneous flowering plants, in which Yuccas, Liliiums, Hydrangeas, Phloxes, Clematises, Kniphofias, Veronicas, Gladioli, and many more were pleasingly set up.

Messrs. W. Wood and Son, Limited, Wood Green, N., exhibited several of their specialties, notably the new suspending baskets, effectively filled with flowering plants, Bamboo canes (dyed green), green raffia, the Muratori hand spray, &c.

Mr. Walter B. Child, Acocks Green, displayed a splendid bank of hardy herbaceous plants in great variety. They were well arranged, and formed a very conspicuous feature at the end of one of the tents.

Mr. Albert Myers, Sutton Lane Nurseries, Shrewsbury, showed zonal Pelargoniums beautifully. The trusses were very handsome, and his exhibit was arranged with much taste.

Messrs. Barr and Sons, King Street, Covent Garden, London, exhibited hardy flowers in great variety. The Kniphofias and Pentstemons were most conspicuous, while Water Lilies, Violas in variety, *Bocconia cordata*, Campanulas, &c., were also well represented. A very interesting and beautiful display.

Mr. R. Greenfield, jun., Leamington Spa, showed *Asparagus Myriocladus*, a new and good plant.

Messrs. Thomson, Sparkhill, Birmingham, exhibited cut blooms of Carnations in many beautiful varieties.

Mr. W. L. Pattison, Cherry Orchard, Shrewsbury, showed a beautiful lot of Pansies and Viola blooms prettily arranged.

Messrs. Stuart and Mein, Kelsos, showed some excellent Malmesdon Carnations as well as several border varieties.

Mr. W. Waters, Westleigh, Acocks Green, showed a collection of Violas that contained some very pretty varieties.

Messrs. Hewitt and Co., Solihull, Birmingham, exhibited a bank of miscellaneous hardy flowers that was very bright. Gladioli, *Heleniums*, *Rudbeckias*, Carnations, Campanulas, &c., were well shown.

Mr. H. Deverill, Banbury, showed Phloxes and other hardy flowers in considerable variety.

Mr. John Wood, Penrith, exhibited a collection of Sweet Peas that were bright and fresh, also his Golden Bean Wood's Centenary.

The King's Acre Nursery Co., Hereford, showed a good collection of hardy fruit. Apple and Pear trees in pots were very well grown.

Messrs. Isaac House and Son, Westbury-on-Trym, exhibited a pretty collection of Phloxes.

## AWARDS.

## LARGE GOLD MEDALS.

Messrs. Richard Smith and Co., Worcester, Mr. F. Davis, Pershore, Messrs. Blackmore and Langdon, Messrs. B. R. Davis and Son, Leopold de Rothschild, Esq., Messrs. James Veitch and Sons, Limited, Messrs. Dobbie and Co., Mr. E. Murrell, Messrs. Hartland and Sons, Messrs. Pritchard and Sons, and Hobbies, Limited.

## SMALL GOLD MEDALS.

Mr. John Russell, Mr. J. H. White, Mr. Maurice Prichard, Messrs. Jackman and Sons, Mr. A. Myers, Mr. Child, the King's Acre Nursery Co., Messrs. Webb and Sons, Messrs. Jones and Sons, Mr. Bolton, Messrs. Jarman and Co., Messrs. Hewitt and Co., Messrs. Laing and Mather, and Mr. S. Mortimer.

## SILVER MEDALS.

Mr. W. J. Scott, Besford House, Messrs. William Bull and Sons, Messrs. Barr and Sons, Messrs. Dicksons, Messrs. Isaac House and Son, Mr. John Wood, Penrith, Mr. Eckford, Messrs. Peed and Son, Messrs. W. and B. Brown, Mr. Darbyshire, Mr. Deverill, Messrs. Thomson and Co., Mr. W. L. Pattison, and Mr. Waters.

## CERTIFICATES.

Messrs. Hobbies, Limited, for Cactus Dahlias, *Loogalu* and *Winsome*, for *Lathyrus latifolius grandiflorus albus*, for Sweet Pea *Dorothy Eckford*, and for Cactus Dahlia *Miss Hetty Dean*.

Mr. S. Mortimer for Cactus Dahlias Mrs. Clinton and Mrs. James Bailey.

Mr. Bradley, Peterborough, for Carnation *Edward VII*.

Mr. Greenfield, jun., Leamington, for *Asparagus Myriocladus*.

Mr. William Dunn for Tomato *Superlative*.

## DUMFRIESSHIRE AND GALLOWAY SHOW.

This show, held at Castledykes, Dumfries, on the 15th and 16th inst., was the best held under the auspices of this old-established society for many years. The new directorate is being well supported by exhibitors and the public. The show was declared open by Mrs. Glover, wife of Provost Glover, after an eloquent introductory speech by Sir James Crichton Brown, in which he referred approvingly to the "Garden City" movement.

The large marquee presented a bright spectacle with its display of horticultural produce, which was generally of high quality, though the season greatly reduced the exhibits of some flowers, Dahlias in particular being poorly represented, and Carnations and Picotees grow in the open were too late for this early date. Sweet Peas, hardy flowers, and Roses were very fine for the season, while fruit and vegetables were excellent. Pot plants were weak in the greater number of classes, but bouquets and baskets of flowers were unusually well done for this show. The most successful exhibitor over all was Mr. J. M. Stewart, Mollance, Castle Douglas, N.B., who also won the Dumfries

Corporation Cup with a beautiful table of plants, composed largely of *Codienms* (Crotons), with Palms and flowering plants. Messrs. James Service and Sons were second, and Mr. Houston, winner of the cup last year, was third in this class. Table decorations were beautiful, the first prize going to Miss Rutherford, Crichton House, Dumfries, for a charming table with Shirley Poppies and Marguerites; her sister, Miss D. Rutherford, being second with a pleasing arrangement of white Marguerites and blue Cornflowers, which found even more favour than the other in the eyes of some.

Messrs. D. and W. Croll, Dundee, led with Roses, which were also well exhibited. Among the non-competitive exhibits Messrs. Palmer and Sons, Annan, Messrs. Smith and Sons, Stranraer, and some local nurserymen also had capital displays.

## EAST ANGLIAN CLUB.

## VISIT TO LORD BATTESEA'S GARDEN

There is a spot high up upon those breezy cliffs of Norfolk, around the Cromer district, named by Lord Battesea The Pleasance. Recently the East Anglian Horticultural Club received an invitation to pay a visit to this once dreary district, and they went in force of about 100 strong. Lord Battesea met the party, and after exchanging courtesies with the President (Mr. J. Powley) and the Vice-President (Mr. T. B. Field), he personally conducted the party round the gardens. To be brief, would be to say every species and variety of hardy shrub and flower was there, and everything was simply revelling in health. However, we must mention the nature of this ten year transformation. What shrubs! flowering and foliage. The Genistas at the time of the visit were alone a revelation. Hardy flowers of every kind, beds of Carnations, masses of annuals, and last, but not least, almost a mile of pergola-covered walks (these mostly paved with old flag-stones from the streets of London). There were splendid masses of *Olearia Haastii* and *Romneya Coulteri* with its almost transparent satiny blooms. Lord Battesea allowed the party the use of the cricket field and bowling-green. A hearty round of applause was given to his lordship on the motion of Mr. Powley, and another to the gardener (Mr. Clements), proposed by Mr. T. B. Field.

**The Gardeners' Royal Benevolent Institution.**—This great gardening charity has marked the Coronation year in a praiseworthy way. As a thank-offering for the King's recovery and to commemorate the Coronation, the committee have placed on the funds, without election, all the candidates who were subscribers without election, and given to each of the applicants who were not subscribers the sum of £5, this coming from the excellent "Good Samaritan Fund."

**Flower show at the Crystal Palace.**—The National Co-operative Festival was held at the Crystal Palace on Saturday, the 23rd inst., and was attended by a large number of persons from all parts of the country who are interested in the movement. As the Agricultural and Horticultural Association were not prepared to carry out a flower show on the scale of previous years, and as the display of garden produce had always been a great source of attraction, it was decided at the last moment to have an exhibition, though on a small scale, and it took place in the basement of the building. A somewhat large space was occupied with garden produce, ranging from elaborate table decorations to vegetables, and though only two somewhat general classes were instituted, a considerable number of exhibits were staged. The task set the judges was a somewhat difficult one, and it necessitated going through the details of each exhibit, estimating each part of it according to a schedule of points. Several money prizes and certificates were awarded. Tables of plants only, some with the addition of cut flowers, others comprised fruit and vegetables, while others were composed wholly of floral decorations, made up an attractive show, and the co-operators crowded about the tables so soon as the show was opened to the public. There is no doubt but that in the future a flower show will form a part of the annual co-operative festival as it has in the past.

**Fringed Begonias.**—When first exhibited a few years ago many prophesied their doom without waiting for results, whilst others, recognising their value for hybridising, set to work with a will and were fortunate enough to raise numerous seedlings. Expectation was at its highest as to whether the seedlings would keep true to the original type, and it is satisfactory to record the large percentage that came true, many being more deeply fringed. Of good habit and with flowers well set up, the shades of colour at present known will before long be largely multiplied.—R. PINNINGTON.



# THE GARDEN

No. 1607.—VOL. LXII.]

[SEPTEMBER 6, 1902.]

## YOUNG TREES AND SUNSTROKE.

IT is most noticeable that the stems of young trees of from 8 feet to about 14 feet in height are apt in some seasons to get much damaged, so much so that the trees are rarely fit for much for some years afterwards, even if they do not die outright. The mischief is usually not seen until it is too late to mend matters, and is found more as a rule on young trees with small heads standing out singly than where they are planted amongst undergrowth or in a partially shaded spot. If careful notice is taken it will be found that the stems are damaged on the south side, or it may be east or west of south, but never on the north side, and is directly caused by the rays of the sun being too hot for the young stems to bear. The trees most liable to sunstroke—which it practically amounts to—are the Lime, Willow, Horse Chestnut, Sweet Chestnut, Birch, Mountain Ash, Ash, and Plane, and generally in the order they are given, the softer wooded trees suffering most. The Oak, Elm, and Beech are seldom much damaged by the sun, though in cases of failure it will be well to notice the stems and see how far the direct rays of the sun are responsible for the death of the tree.

The first marks of sunstroke are seen in the shape of longitudinal cracks in the bark, which is also slightly browned and flattened, as if there were a hollow beneath. The part affected is from about 1 foot to 3 feet in length, and from 1 inch to 3 inches in width. If the bark is cut away the wood beneath will be found perfectly firm but hard and dry, more like a piece of seasoned wood than part of a growing tree. When such is the case the only thing that can be done is to cut the bark back to the living tissue, thoroughly coat the wound with gas tar, and shade the stem afterwards with a few branches or something that does not need to be fastened on the stem. Hay or straw bands cannot be altogether recommended, as anything which excludes the light tends to the softening of the young bark. This should be avoided, as the firmer the bark the better will be the ultimate success of the tree. Iron tree-guards, though not beautiful, have the advantage of protecting the stems of young trees from the sun as well as from the attacks of animals. In addition to the slight shade they give, the iron, being a good conductor of heat, takes up

a large amount of the heat rays which would otherwise be directed full upon the stem.

A hot, dry season is no more likely to cause sunstroke than a wet one, and probably not so much, as we have noticed it this year quite as much as in former ones. The time when it is most likely to happen is when a few days of hot sunshine follow a spell of wet weather, as the wood is then soft and full of moisture, and is more liable to be scorched than during a period of prolonged sunshine.

When trees are planted out singly it is well to choose those with spreading heads and low stems, as then the tree will shade itself to a great extent, the short amount of bare stem being less exposed to the sun's rays than a taller one. After all, this is only Nature's method of protection, as, in a wild state, no young tree is bare-stemmed, except in a wood, where it is shaded by those around it. On the edge of a wood, or in the open, young trees are furnished to the ground with foliage, which is not shed until the stem has become hardened enough to withstand climatic vicissitudes. If trees with tall stems are the only ones available, then the stems should be shaded by some means for a year or two, especially when they have become established and are making strong, sappy growths, as the stem is practically in the same condition and apt to be scorched by a sudden burst of hot sunshine.

Sunstroke must not be confounded with the ravages of the caterpillars of the Goat Moth and Wood-Leopard Moth, the external signs of which are much the same, but on the bark being removed one or two channels almost the size of a man's little finger are to be seen, together with accumulations of wet sawdust-like material deposited by the caterpillar. These are exterminated by thrusting a stout wire into the channels until the grub is killed, and afterwards cutting away the dead bark and tarring the wound thoroughly. The tree should also be securely staked to prevent it snapping off in a high wind.

## WHY HOLLYHOCKS FAIL.

We have received several letters of late complaining of the diseased condition, not only of Hollyhocks propagated from cuttings and in other ways, but also those from seed, although seedlings are supposed to be almost disease proof. We wrote to the well-known growers, Messrs. Webb and Brand, of Saffron Walden, and their reply will interest all lovers of a noble garden flower:—

"Replying to yours in reference to the

Hollyhock disease, we have found nothing of any good in the way of dressing, but find from experience that the hardier the plants are treated the less they suffer from it. Instead of wintering under glass as formerly, they succeed much better by being planted in the autumn in moderately rich soil away from the drip of trees, and as much exposed as possible to the fresh air, with liberal watering with liquid manure when the buds are forming. By this time the leaves have completed their growth and matured, hence are not so susceptible to the disease as the coarse, over-fed growths often caused by strong feeding when the plants are young. The plants may be cut down after flowering, the crowns and stalk at the base covered over entirely with cinder ashes; this not only protects them from frost but also shields them against the disease; remove this about March, when the new growth should be thinned out."

## ROUND ABOUT A GARDEN.

### WHAT IS A GARDEN?

My view of a garden is one which I never knew any gardener to hold. It is primarily that of a secluded place where one can wander after breakfast with contentment, noticing what has happened there since yesterday. There is a superior class of persons who wander in their gardens before breakfast; but I have never risen to this giddy height of virtue except by an effort or an accident, and have on such occasions always felt the worse all day for my walk before breakfast. The man who outraged the wisdom of the ages by misquoting, "Early to bed and early to rise gives you a baggy look under the eyes," evidently suffered from the same contrary disposition which makes it much easier for me to sit up all night to hear the birds sing, than to get up early for the same purpose.

### GETTING OUT OF YOUR OWN SIGHT.

After breakfast, however, I yield to no one in the enjoyment which I can get out of a garden, provided that it is sufficiently irregular or extensive to offer changes of view as you wander along. There are many gardens, brilliant and costly enough, of which the whole is always in view from every point. Of such a garden you exhaust the pleasure in five minutes, though it may take you half an hour to read all the plant-labels. The ideal garden is one where you can almost get out of your own sight and enjoy some new glimpse of prettiness in every few yards. In such a garden you feel that you could wander idly for ever, "communing with Nature."

### AT LOGGERHEADS WITH NATURE.

But Nature is a contrary jade; and, if you take an interest in the garden as a garden and not only as a promenade, you will not have been there five minutes before you are at loggerheads with her. You catch sight of a weed, placed by Nature exactly where you do not want a weed. So—up it comes. But in stooping to seize it you catch sight of others, and before you realise what is happening you have embarked upon an impromptu campaign against Nature. And to weed properly you need a basket and gloves and a fork, armed



with which you look and feel a very different sort of person from the one who came out a few minutes ago to saunter in the garden and look about you.

#### WITHERED BLOOMS.

Almost more aggravatingly incentive to labour when you least want to work is the withered blossom. The weed, at any rate, looks green and happy, and you can leave it "until next time"—though it is astonishing how often "next time" does not arrive before the weed has ripened and shed its seed—but, when you come upon, say, a group of clustered Bell-flowers which you admired yesterday, and you find their collective beauty spoiled by a withering bloom here and there, how can you be expected to resist the laudable temptation to remove them? But this concession to your aesthetic conscience renders it so sensitive that you become hypercritical in your survey of the next group of flowers; and you are lucky if the snip-nip of the scissors does not betray your whereabouts in the garden long after you ought to be somewhere else engaged on other business.

#### THE PLEASURE OF ENDLESS WORK.

That is the worst—and also the best—of a garden in the tending of which you take any active part. There is no part of it in which at any hour of any day in any season you will not find something to do for its improvement; and, if your saunters are cut short thereby, I doubt whether any man ever has more honest pleasure than he who straightens his bent back and looks behind at a long vista of beautiful things which are all the better for the care which he has just been bestowing upon them. Thus you can never finish the work nor exhaust the pleasure of a garden; and whether you are "communing with Nature," or waging war upon her, you are learning to understand and appreciate her all the time. For there is no ill-will in your campaigning. The flowers on whose behalf you destroy the weeds are equally Nature's darlings with the others, and the more you help them the more she co-operates with you, until a triumph has been achieved which is a credit to you both.

#### INVADING THE JUNGLE.

It is this personal element of struggle and victory which lends most pleasure to a phase of gardening that the trained gardener regards as a great waste of labour. Three years ago I came into tenancy of a garden ringed with a young plantation choked with Nettles from end to end. Through this a winding path has been made, and a shrubby border occupies the margin, and from these two scientific frontiers garden plants have been encouraged to invade the Nettle realm with such success that these are now being driven to the outskirts. E. K. R.

#### EDITOR'S TABLE.

##### CARNATION GEORGE MACQUAY.

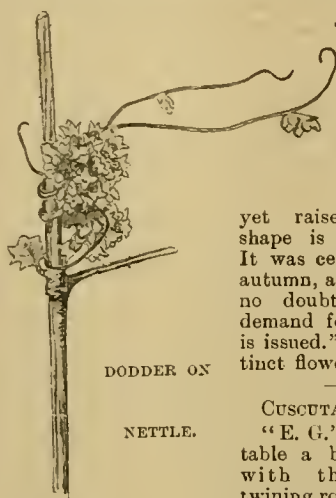
Mr. Watts, Bronwyflla, St. Asaph, sends flowers of this beautiful white Carnation with this note: "I was interested in the note in THE GARDEN about white Carnations, and am sending a few flowers of my best George Macquay, which is a grand grower, a profuse bloomer, never bursts, and has very erect and stout stems. I have tried Trojan, Wild Swan, The Briton, Ptarmigan, and others against it, but they are nowhere. I grow all my Carnations in the open border without shelter in summer and winter, and the enclosed white is one of my best doers."

A superb flower, and one we have long admired. We hope to reproduce the photograph of the plant kindly sent by Mr. Watts in a week or two.

##### NEW CACTUS DAHLIA ALPHA.

Mr. F. H. Chapman, Guldeford Lodge, Rye, sends flowers of a very pretty new Dahlia. Our correspondent writes: "It was sent out this season by Messrs. Stredwick, of Silverhill Park, St.

Leonards. It was aptly described to me by Mr. Stredwick as the first fancy Cactus Dahlia yet raised. It possesses the merit of being free in blooming—the blossoms sent were all cut from one plant—and it also holds its flowers well away from the foliage. Messrs. Stredwick are not sending out their new Dahlia Lilac till next spring. This



DODDER ON

NETTLE.

latter flower possesses, to my thinking, the most delicate colouring of any Cactus variety yet raised, and the shape is also unique. It was certificated last autumn, and there will no doubt be a big demand for it when it is issued." It is a distinct flower.

##### CUSCUTA EUROPEA.

"E. G." sends for our table a bit of Nettle with this Dodder twining round the stem. We made a drawing of natural size. It is found on Nettles in particular, and also on Vetches. The little flowers, packed into ball-like masses, are quite pretty with their pinkish colouring.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

September 10.—Royal Caledonian Horticultural Show at Edinburgh (two days).

September 16.—Dahlia Show, Royal Aquarium (three days).

September 18.—Great Fruit Show, Crystal Palace (three days).

#### Rare plants in flower at Kew.—

In future a list of the rare plants flowering at Kew will be given each week, to enable those who have an opportunity of so doing to see them in bloom.

#### The floral and fruit (R.H.S.) committee cricket match.—

A match was played between these two committees on Wednesday last, through the kindness of Mr. Leopold de Rothschild, in Gunnersbury Park. The teams were as follows:—*Floral*, Mr. W. Howe (captain), and Messrs. C. E. Pearson, C. J. Salter, C. Dixon, J. Hudson, C. R. Fielder, J. Walker, E. Jenkins, C. T. Drury, H. J. Jones, and R. Dean. *Fruit*, Mr. G. Woodward (captain), and Messrs. A. H. Pearson, G. Reynolds, W. Bates, E. Beckett, H. Esling, M. Gleeson, G. Kelf, A. Dean, and W. Iggulden. The fruit committee scored forty-three in the first innings, and the floral committee thirty-one. Mr. S. T. Wright and Mr. Humphreys umpired. Mr. R. Deans scored. It was a sunny day, and about sixty sat down to lunch. Mr. W. Marshall proposed and Mr. Balderson seconded, a hearty vote of thanks to Mr. Leopold de Rothschild for his kindness in allowing them the use of the field. Amongst others present were:—Messrs. George Paul, H. B. May, Harry Turner, H. Balderson, Owen Thomas, W. J. James, and several ladies. The gardens were visited in the afternoon. They are now in their full autumn beauty.

#### The Floral Committee and its awards.—

The work of this committee would be more instructive and interesting if those who send exhibits were compelled to give full particulars of the origin, &c., of the plants shown. The committee are asked to judge flowers of which they know nothing with regard to their origin,

where grown, or their likely value in the garden. A plant, as far as the committee is aware, may have come from the Himalayas or from New Zealand. It is of the greatest importance to the committee to know something of the new plants and flowers shown, and not to make guesses as to their probable habitat.

#### Crystal Palace Fruit Show.—

The Royal Horticultural Society's great show of British-grown fruit takes place at the Crystal Palace on the 18th inst. and two following days. Copies of the prize schedule, with entry form, can be obtained on application to the Secretary, Royal Horticultural Society, 117, Victoria Street, Westminster. Intending exhibitors must give notice in writing not later than Thursday next, the 11th inst., of the class or classes in which they propose to exhibit and the amount of space required. On each day of the show after 10 a.m. Fellows of the Society, on showing their tickets at the turnstile, will be admitted to the Palace free.

**Obituary.**—The death of Mr. Angus Macleod, on August 20, is announced. The deceased retired from the superintendence of the Edinburgh parks and gardens nearly two years ago, and during the twenty-five years he held that position he did much towards bringing Edinburgh horticulturally into line with other cities.—R. B.

#### Torquay Flower Show.—

Mr. R. P. Kitson, the hon. secretary, writes: "The committee regret that owing to lack of funds they are compelled to cancel the schedule for the annual Chrysanthemum show fixed for November 5, with the exception of the special prizes, classes 29-33. It is, however, intended to hold a show on the same day for honorary exhibits, and it is hoped that the friends and supporters will endeavour to send as many exhibits as possible in order to make the show a success. For any further information apply to George Lee, hon. assistant secretary, The Lodge, Upton Leigh, Torquay."

#### Late dessert Cherries.—

It may not be considered necessary to have many varieties of late Cherries, but where fruit is required in quantity I find the late Cherries most valuable. Another good point in the case of most of the late dessert varieties is their good cropping qualities. Although in heavy clay or badly-drained soils the late fruits split badly in wet seasons, it is an easy matter to make the soil suitable by efficient drainage. It should also be borne in mind that Cherry trees are not usually deep rooters; indeed, the nearer the roots are to the surface and well fed the better the crop. A most valuable variety only recently introduced promises to be excellent for dessert. This is the new Noble, a very large fruit and well flavoured. So far with me Noble has not made the most liberal growth, but often young trees behave thus, and it is early to criticise in any way. Our best late Cherry is the older St. Margaret's, and for late dessert it is superb. When grown on a west or east wall this variety may be had good well into August. For latest use I would advise an east aspect, especially if the locality is in the warmer portion of the kingdom. In the North a south-west wall is more suitable. Florence is another excellent late variety. This, like the others named, does best against a wall, and we have only this week (August 25) gathered our last fruits. It is a large pale yellow fruit of fair quality. Another very fine Cherry that should be in all gardens where late fruits are valued and variety is needed is the Guigne de Winkler. This with us will keep as long as the Morello. It is a bright red fruit, luscious and juicy, and a good cropper. The Late Duke is also worth room in all gardens. In our own case this in the North is better than the Morello as regards the crop, and it keeps well into September. It is a large, bright red, slightly acid fruit, but of good flavour, and a grand cropper. In the South it is a favourite late dessert variety. When grown on a north wall it may be kept well into September. In some parts of the country this variety is grown under the name of Ronald's Cherry. In many places I have seen the Morello grown on a warm wall for late dessert. Grown thus it is much better than the fruits on a north aspect.—G. W. S.



**Anthericum ramosum.**—The Anthericums—and among them one includes the *Paradisio* or *Czackia*—are very pleasing garden plants, to whose numbers in our gardens there is surely room for some additions, as may be seen from scanning the long list of names in the “*Index Kewensis*.” A considerable number of these ought to be hardy with us, and their introduction might yield welcome variety. Still, I do not think we make enough of those we already have, and I have been surprised to find how little cultivated is *A. ramosum*, a South European species hardy with me here, and a distinct thing from either *Liliago* or *Liliastrum*, the two most commonly seen. At times we meet with it under the name of *A. graminifolium*, which the work already alluded to refers to as *A. undulatum*, a South African species. The plant generally known as *A. graminifolium* is, however, *A. ramosum*, a pretty, if not showy, species, with long grassy leaves and tallish spikes of white flowers, with almost saffron-coloured anthers. When in good soil it grows about 2 feet high, and its hard wiry stems are so firm and erect that they do not require any staking or tying. The flowers are rather too sparsely produced to please some, but then they are so graceful in their arrangement and individually so very pretty with their clear white segments and their yellow reproductive organs. It is hardy with me, and is, I think, one of the many plants which are none the worse for having partial shade during the hottest part of the day. I grow it here in a rather light and peaty soil at the base of rockwork.—S. ARNOTT.

**Lilium Kelloggii.**—One hopes that the illustration and description of the new *Lilium Kelloggii* which appeared in *THE GARDEN* last year, and was, I believe, the first of the kind in the British horticultural Press, induced many of your readers to secure this pretty *Lilium*. As one, at least, who was glad to have an opportunity of doing so, I am pleased to be able to say that I have bloomed it here, and also to be able to express my appreciation of such a distinct Turk's Cap Lily. I am growing it in a position shaded from all but the morning sun and in a sandy peat, not too dry, yet not excessively wet. It has bloomed well, beginning early in July, and giving a considerable number of its pretty pink flowers, which, though not large, are of a pleasing colour and attractive. There are many more showy Lilies, but we have few of its colour, while its habit is pleasing also with its whorled leaves and its stems of medium height. It has made such good growth and is ripening so satisfactorily that I hope it is going to become a permanent occupant of my garden.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

**Flowers in Ravenscourt Park, Hammersmith.**—In this pretty little park there are some good flower arrangements. A bed of Fuchsias, with an undergrowth of *Viola Mauve Queen*, is a very simple and happy mixture. There are some good beds of *Celosias* on a groundwork of *Antennaria tomentosa*, also mixtures of *Plumbago capensis*, *Pentstemons*, *Grevillea robusta*, and *Amaranthus melancholicus*. A large scroll—that will look better later—is composed of *Begonias* on a groundwork of *Mesembryanthemum cordifolium*, edged with *Echeveria secunda glauca*. A large bed (facing the Public Library) of *Abutilons* and *Coleus Verschaffelti*, edged with white *Iberis*, is quite worth a note. On the building there is a fine display of *Jasmine*, *Clematis Jackmani*, *Crimson Rambler Rose*, and that fine old creeper *Ceanothus azureus*, not planted so largely as it should be in gardens. In the little conservatory adjoining there is a fine lot of mauve and white *Campanula pyramidalis* and *Salvia splendens*. A striking combination of colour is seen in one of the shrubby borders by a fine lot of scarlet Dahlias, with *Acer Negundo*, *Golden Privet*, and a purple-leaved *Hazel*. There is a good star-shaped bed in front of the refreshment room planted with *Alternantheras* in variety, with dot plants of *Pachyphytum bracteosum* and *Pandanus* edged with *Echeverias*.—QVO.

**Tufted Pansies raised by the late Dr. Stuart.**—I much admire the *Violas* raised by the late Dr. Charles Stuart, of Churnside, N.B.,

as the plants of the majority of his raising possessed points of merit not met with in other collections. It is well known that this enthusiastic admirer and grower of these delightful flowers worked upon a stock (*Viola cornuta*) which other raisers appeared to ignore. Because of this fact it is fairly easy to trace the parentage of many of his charming seedlings, his plants in almost every instance having a quite tufted habit. A special point is the fragrance of the flowers. A few in a small vase in a room fill it quickly with their fragrance. The miniature-flowered *Violetta* was one of the very earliest of his seedlings, and as this variety possesses a good constitution the plant has come to stay. The flowers are pure white with a suffusion of yellow on the lower petal. *Blue Gown*, a mauve-blue, is a perfect bedder of tufted habit and extremely free-flowering. *Florizel* is one of the very best, its growth being all that one can desire, and the colour a lovely lilac-lavender. *Rosea Pallida* is another gem, very much resembling the last named, but with more circular flowers and of a paler rose-colouring. *Sylvia* was for years considered an ideal bedding creamy white kind. The lovely yellow *Pensee d'Or* is but little known, its colour is orange-yellow, and the habit is perfect. There is very little stock of this plant about; fortunately the raiser sent me half a dozen plants last year, and with these there has been a wonderful display this season.—D. B. CRANE.

**Asclepias curassavica.**—I was much interested in the note by “T.” in the issue of *THE GARDEN* for August 23 on this useful plant. In the course of my wanderings I have seldom seen this plant, and this is due probably to the fact that it is insufficiently known. Having grown it for several years in the cool conservatory during the summer and autumn months, I can recommend it for its extreme usefulness for making a brilliant display over a long period. In my opinion this *Asclepias* is one of those useful plants that has been thrust aside for newer introductions or for plants that obtain more favour at the present day. It is an excellent decorative plant for arrangement with other flowering and foliage plants and not as a cut flower; the stems of the plants when cut bleed so profusely that the leafage and flower flag soon after they are severed from the plant. The individual spikes or umbels of flowers may be broken out of their socket and made up into buttonholes with a background of Fern or Asparagus for a dinner party. I have also utilised the umbels of flowers among greenery traced upon the dinner-table with pretty effect. Seed is freely produced, and a pinch may be sown in peat in the month of February and another at intervals of a month or six weeks to form a succession. By having three batches of plants at various stages it is possible to have them in bloom for several months, as the flowers are borne at the point of the shoot. As each shoot grows, it continues to produce an abundance of its orange-scarlet blossoms. Plants plunged in the open garden at Kew or other favoured spots are a success; but here in the Midlands I find they quickly show signs of failing. This *Asclepias* was some years ago cultivated in hothouses, but I find that a greenhouse temperature suits the plant best, at any rate in this locality.—H. T. MARTIN, *Stoneleigh*.

**Fuchsias at Trowbridge.**—Almost for the whole period that the Trowbridge Horticultural Society has been in existence, namely, fifty-three years, this Wiltshire town has been famous for its Fuchsias, and finer specimens—if indeed so fine—cannot, I think, be found in any other exhibition about the country. At the fifty-third annual exhibition, held on the 20th ult., there were two open classes for Fuchsias, namely, for six specimens and for four specimens. Trowbridge thinks so much of its Fuchsias that it gives them the place of honour in its schedule of prizes, and so closely does the Trowbridge show follow upon the old lines of thirty years ago that the plants always occupy the same positions in the large plant tent—viz., at one end of it. The principal cultivator of specimen Fuchsias is Mr. George Tucker, a nurseryman at Hilperton, near Trowbridge. Formerly a gardener at a private place, he, on the death of his employer and the

breaking up of the establishment, took over the collection of plants, and he is an exhibitor at the various flower shows held in the district. At the recent show Mr. Tucker staged ten specimens, four in one class and six in another, and he won the first prizes in both classes. A Trowbridge exhibition Fuchsia is a plant two, three, and four years old, cut back of course in early spring to a mere trunk, grown on for a time in warmth, and generally finished off in the open air during the last six or eight weeks before being exhibited. The plants are generally in 10-inch pots, they average from 6 feet to 8 feet in height, of vigorous growth, the shoots tied in closely, so that the plants are of a somewhat severe cone shape, and they, when at their best, are literally sheeted with fine blossoms. The reason why the plants have their shoots tied in so closely is in the interest of safety when conveyed by road, and also in the interests of economy in van space. When it is remembered that the plants are too tall to be conveyed by rail, and have to be sent twenty and thirty miles by road, the necessity for this method of training is at once seen. But their formal training notwithstanding, they are triumphs of cultural skill. In the case of perfectly finished examples the pots are scarcely seen. In his half dozen Mr. Tucker had four dark varieties, namely, *Charming*, *Final*, and *Brilliant*, all raised by the veteran James Lye, and *Doel's Favourite*, an excellent free-blooming variety raised some forty years ago by a local grower of the name of Doel, who was present at the Trowbridge show to see his seedling in such fine character. There were two light varieties, viz., *Mrs. Bright* and *Western Beauty*, both raised by Lye, the last extremely fine but apparently little known outside the locality. His four specimens included *Charming*, which is one of the best dark decorative or exhibition Fuchsias ever raised, and *Bountiful*, one of Lye's darks, with Mr. H. Roberts, which has rose-coloured tube and sepals, the corolla of a peculiar dark crimson, and *Western Beauty*. As the second and third prize collections were much above the average of specimens seen at our large provincial shows, they can be regarded as worthy specimens to compete with Mr. Tucker's superb plants.—R. DEAN.

**Flowers in Park Lane, Hyde Park.**—The bedding here is now beginning to make a show, but owing to the unfavourable season is rather late. We may mention some of the beds which are at the present time worthy of note. It is always the aim of Mr. W. Brown, the superintendent, to introduce some new features—by no means an easy task—year by year. In illustration of this may be noted an arrangement of *Abelia rupestris* (a new plant for bedding), which, with its Myrtle-like foliage and pretty little white bell-shaped flowers, presents a very elegant appearance, associated with a band of *Alternanthera amoena* and a carpet of *Amaranthus tricolor*. A circular bed planted with *Lantana delicatissima*, with an undergrowth of that Fern-like plant *Oreocome Candollei*, presents a very neat appearance, and will still improve. Very good is a combination of pink-flowered *Pelargoniums*, with dots of *Iresine brilliantissima*. *Fuchsia Scarcity*, with a carpet of mixed *Mimulus*, is pleasing. A rich bed is that furnished with crimson tuberous *Begonias*, variegated *Alyssum*, and *Grevillea robusta*. A dark *Canna*, named *Adrien Robinii*, associates well with variegated *Maize*. Ivy-leaved *Pelargonium Galilee* (pink) and the beautiful *Francoa ramosa* is a very charming mixture. Mixed *Lantanas*, with *Begonia semperflorens rubra* and a carpet of *Alternanthera aurea*, will look well soon. Large plants of scarlet *Pelargonium George Potter*, with *Coreopsis grandiflora* and *Linum angustifolium*, make a rich display. Ivy-leaved *Pelargonium Abel Carrière*, dark crimson *Verbena venosa*, and bronze *Coreopsis* are good. A pair of beds having *Lantana delicatissima*, a carpet of *Viola Duchess of Fife*, with intermediate plants of *Celosia plumosa*, is a very rich arrangement. A pair planted with *Cuphea platycentra variegata*, dots of *Scabious caucasica*, and carpeted with *Viola William Neil*, is very good. *Crimson Pelargonium*, with dot plants of *Coreopsis grandiflora*



flora, is a telling combination, and the same praise is due to pink Pelargonium, with dots of *Veronica Andersoni variegata*. *Heliotrope* President Garfield, with Ivy-leaved Pelargonium Mme. Crousse, and a band of *Fuchsia Meteor*, is a happy arrangement. Very handsome is a bed of mixed *Petunias*, *Swainsonia galegifolia*, with a carpet of *Mimulus* and a band of *Viola William Neil*, a seldom seen but pretty mixture. The bold flowering *Hydrangea paniculata grandiflora*, in a carpet of Earl Beaconsfield Pansies, looks well. *Lantana Drap d'Or*, a yellow variety, planted in a bed of *Viola Blue Bell*, is very telling. Very graceful is *Abelia rupestris*, associated with *Bouvardias* (pink and crimson), and *Begonia semperflorens rosea*. Large plants of *Acalypha musaica*, the beautiful *Plumbago capensis*, and white-flowered *Lantanas* make a bold and striking mixture. There is a good bed of *Carnation Alice Ayres*, white, tipped with carmine, fine quality, and strong grower. *Fuchsia Display* and variegated *Maize* is an effective arrangement. A bed of standard crimson Pelargoniums, *Artemisia*, and the pretty white and pink *Gaura Lindheimeri* looks very neat. *Nierembergia gracilis*, mixed with scarlet Pelargoniums, is an uncommon and pretty mixture. A fine bed is furnished by *Plumbago capensis alba*, *Begonia fuchsoides*, and the rich *Salvia splendens*. A fine group of *Hydrangea Hortensia* arrests immediate attention; also the bold and effective grouping of *Bamboos*, *Heliotropes*, *Bougainvillea glabra*, *Palms*, &c.—*Quo*.

#### MOUNTAIN FLOWERS.—IV.

##### THE ALPINE GARDEN AT THE ROCHERS DE NAYE.

At page 97 some account was given of the wild flowers at the Rochers de Naye above the north-eastern end of the Lake of Geneva, at an altitude of 6,000 feet. The Botanical Society "Rambertia" here has its lately-established alpine garden, the presidency of the society and directorship of the garden being both in the able hands of Mr. Correvo, who has also for many years undertaken the same duties in the case of the older garden of "La Linnaea" at Bourg St. Pierre. This is on the granite, while the one at the Rochers de Naye is on the limestone, and is devoted to the range of alpine plants of all countries that occurs on that formation.

A narrow rocky footpath, beginning at the hotel and terminus of the little alpine railway, takes the easiest way along the shoulder of the ridge among limestone boulders bedded in a short growth of grass and Whortleberry, dwarf Willow, Rhododendron, and Juniper, enlivened by the starry bloom of *Dryas* and *Ranunculus alpestris* and the more important flowers of *Anemone alpina* and *A. narcissiflora*, of *Trollius*, and *Primula elatior*. Just down to the left, on the steep grassy slope, are still large patches of unmelted snow. The day is warm, with hot sun and cloudless sky, and, standing still for a moment on the way to the garden, the ear is delighted with the sound of the many little tinkling rills that run on warm days from the remaining snow patches on both sides of the high mountain valley.

The site of the garden is mainly on the southern slope of a steep gorge that begins, narrow at the top, between the two "Denteaux," great masses of calcareous rock that tower up into the sky on the crest of the ridge, but it also comprises the crests and sides of the "Denteaux" themselves, and lately has received

considerable additions at their southern base, where plantings of *Arollas* (*Pinus Cembra*) and other conifers promise their future shade to the visitors in years to come of this highly interesting garden. The *Arolla*, the ancient alpine Pine that is dying out in its native places in Switzerland, where formerly it covered large tracts, is also planted here in almost inaccessible places; the young trees are thriving, and promise well for future beauty as well as usefulness, for they will help to stop the rolling stones that fall from the rocky heights. The situation of the garden is ideal both for natural beauty and for general suitability, presenting a complete variety of aspect and of natural disposition of mountain mass and stony declivity. The tops of the great "Denteaux" are crowned with natural vegetation of short scrub and grass. The space between them, narrow at the top, widens a little down the steep southern slope. Paths, forming rather close zig-zags, give access to every part of the slope, and rock and earth are arranged to form places for the already large collection of plants. It was begun six years ago, and every year sees a marked advance.

The alpine *Campanulas* are largely represented. The beautiful *C. pusilla* is a native of these rocks, growing in the narrowest clefts, and the curious *C. thyrsoides*, one of the only two *Campanulas* with yellow flowers, is here also in the wild state among the boulders facing the south. Among the planted collection is *C. Allionii* of Piedmont, with its strangely large flowers; *C. pulla*, which has become almost a weed; *C. excisa*, of the Simplon and the Alps of Saas; *C. carpatica*, *C. tyroliensis*, *C. barbata*, *C. collina* from the Caucasus, and even *C. garganica* from Central Italy on the Adriatic, which lives and flowers, though more sparingly than at less trying altitudes. The *Edraianthus* group, nearly related to the *Campanulas*, natives of the mountains of Austria and the Balkans, have been tried, but only two have allowed themselves to be acclimatised. The garden has a good group of the alpine *Geraniums*. Among those well established are *G. cinereum* and *G. Endressi* from the Pyrenees, *G. macrorhizon* from the Eastern Alps, *G. pratense* of Central Europe, *G. tauricum* from the Caucasus, and *G. argenteum* from the Italian Tyrol, which seeds itself about.

The collection of *Androsaces* is almost a complete one. Some are planted in upright rifts of the great cliff, stones being cemented in to give bases to their niches. *A. helvetica* is there in a wild state. Of *Primulas* the collection is young, but is increasing. A rather full collection of *Sempervivum* was planted, but, unfortunately, all were eaten down to the roots by some mountain sheep that got in before the garden was adequately fenced. *Chamois* are also occasional depredators. The charming little *Papaver alpinum* has been introduced, and now seeds itself about. *P. nudicaule* has also taken kindly to the garden, and comes up everywhere from self-sown seed. It was especially beautiful at the time of my visit in the second week of July, too early a

date to see the bulk of the collection in flower—September being the best time. It happened that there was a long patch of Iceland Poppy along the edge of a high ridge. Standing below, it was fine to see it clear against the deep blue sky, the colour of both being intensified by the juxtaposition of the two exactly complementary colours. Conspicuous in the upper part of the garden was a large patch of young plants of *Eryngium alpinum*, the young radical leaves looking at the first glance like *Caltha*. It is good to know of so healthy a stock of the true plant, so rarely to be obtained right in nurseries, the rule being that every sort of poor substitute is sold for one of the most beautiful plants we can have in our gardens. It is a rare plant even in nature, occurring only here and there throughout the alpine range and never in any quantity. It would seem to be one of those ancient plants that are dying out, but its beauty is so remarkable, both of bluish metallic colouring and of richly fringed bract, that it is pleasant to know that in the good stock at the Rochers de Naye and the promise of abundant seed that the vigour of the young plants seems to hold forth, this good plant is safe and accessible to all who want the very best for their own careful cultivation.

It would be impossible to enumerate the varied contents of this highly interesting garden. It is in the first instance a gathering together of the plants of the Vaudois Alps, with the addition of plants of beauty and interest from many a far-away alpine region of limestone formation. Among much that is useful and interesting it will demonstrate which are the plants from lower regions that will endure or receive benefit from the long-retained coating of snow at the high altitude; already it has been shown that exotic plants that perish at Geneva survive at Naye, which is the highest botanic or alpine garden in Europe. Its useful progress is only hampered by want of sufficient funds to enable the contemplated extensions and plantings to go on as quickly as would be desirable; as it is, these can only proceed very cautiously and slowly; but its work deserves the sympathy and practical support of the large number of English amateurs who love alpine plants. There is a small annual subscription and a proportionally modest sum as the price of life membership. I have no note of these amounts, but this and any other information may be obtained from Mr. H. Correvo, Jardin alpin d'acclimatation, Geneva.

The garden at the Rochers de Naye has the advantage of being in charge of a clever and enthusiastic young gardener, Mr. Louis Recordon, whose courteous willingness to impart information adds much to the pleasure and profit of visitors who are in sympathy with the plants of the mountains. Mr. Recordon is making a collection of dried plants of the region to which visitors have access. It is proposed that when this is a little forwarder that it should be housed at the hotel with the society's library, where it will be accessible to botanical visitors.

G. J.



# TREES AND SHRUBS FOR ENGLISH GARDENS.

## THE PEARL BUSH

(*EXOCHORDA GRANDIFLORA*).

**A**NORTHERN CHINA deciduous shrub sometimes known as *Spiraea grandiflora*; it is a handsome shrub when covered with its snow-white flowers. Too seldom do we see it even in large gardens. At times it is treated as a wall plant, but it is more beautiful when allowed to assume its natural half-drooping habit. It will flourish in almost any kind of soil, given a warm sheltered position from

good plan to remove weakly branches from the centre after flowering to admit more light and air to those remaining. E. MOLYNEUX.

## AUTUMN COLOURS.

(Continued from page 149.)

AMONG commoner trees the yellow of the Horse Chestnut, the lovely crimson of the wild Cherry, the golden shades of the Black and Lombardy Poplars, add much to the rich beauty of autumn. Several of the Maples are noteworthy in this respect, more especially the numerous varieties of Japanese Maples (*Acer palmatum* and *A. japonicum*), these, as well as the Mandshurian *Acer Ginnala*, turning to various shades of red. The common Sycamore and Norway Maple change to yellow, but Schwedler's variety of the latter becomes red. Other trees that deserve mention are *Amelanchier canadensis*, whose foliage changes to lovely crimson shades in autumn; *Koelreuteria japonica*, soft yellow; *Pyrus torminalis*, bronzy red; *Ginkgo biloba*, pale gold; *Cladrastris tinctoria*, yellow; *Parrotia persica* and *Hamelis*, bronzy red and yellow. The common Beech is nearly always beautiful, changing first to yellow, then to warm brown tints. Among conifers the yellow-leaved variety (*aurea*) of the Scotch Pine is remarkable in retaining its colour during the winter months only, becoming green in spring and summer. *Retinospora squarrosa* and *Cryptomeria elegans* turn bronzy red in winter. The warm red-brown tints of the deciduous Cypress are charming.

*Shrubs.* — The Sumachs (*Rhus*) furnish some of the most striking of autumn-colouring shrubs; the best of them, *R. cotinoides*, I have already described; other fine species are *R. typhina*,

*R. glabra* (with the cut-leaved variety *laciniata*), and *R. Toxicodendron*, all of which turn red. The Venetian Sumach, *R. Cotinus*, becomes yellow. *Berberis Thunbergi*, which dies off a rich scarlet, is so beautiful in autumn that on some estates it has been planted in great quantity, not only for cover, but so that sportsmen may enjoy its colour during the shooting season. Its evergreen ally, *B. Aquifolium*, turns a glowing red or purple after the first frosts. The Ghent Azaleas almost always colour richly, either deep glowing crimson, bronzy red, or gold; and of other ericaceous plants the warm tints of *Pieris mariana* and the rich crimson of the *Enkianthus* should be mentioned. The taller American *Vacciniums*

(*corymbosum* and its various forms) are always lovely. Our native Guelder Rose (*Viburnum Opulus*) becomes crimson in autumn, whilst the common Hazel and *Rhamnus Frangula* often produce fine effects in yellow. The feathery foliage of *Spiraea Thunbergi* is singularly beautiful when it changes from its natural pale green to crimson; and two other Japanese shrubs (both, unfortunately, very rare) are remarkable for their autumnal beauty. These are *Disanthus cercidifolia*, an ally of the Witch Hazels, lovely claret colour; and *Viburnum alnifolium*, crimson.

Other noteworthy shrubs are *Fothergilla alnifolia*, rich red; *Euonymus alatus*, crimson; *Deutzia crenata*, yellow; and *Pyrus arbutifolia*, red. The common Brambles of our woods should not be passed over without mention; they turn a rich glowing red, and for their autumnal beauty alone may be used as undergrowth in wilder parts of the garden and woodland.

*Climbers.* — First among these, of course, is Veitch's *Ampelopsis*, the finest of all deciduous climbers for walls, being self-supporting and changing to crimson in autumn. *Vitis Coignetiae* is one of the noblest of all Vines, and turns crimson also. Other Vines useful in this respect are the Teinturier Vine, purple; *V. Romaneti*, red; and the Virginian Creeper, especially that variety known as *muralis* or *Engelmannii*, which clings to walls or tree trunks without any artificial support, and acquires beautiful red shades in autumn. Among Honeysuckle, *Lonicera japonica* var. *flexuosa* is noteworthy for the fine red-purple of its decaying leaves. W. J. BEAN.

## LIGUSTRUM SINENSE.

THIS handsome evergreen Privet is a native of China, and should be represented in every garden, as it is one of the most ornamental of the genus. It is very accommodating in respect to soil, but flowers most profusely when growing in a moderately dry, sandy loam. With age it will attain a height of 15 feet or more, with a graceful and spreading habit, and is covered during the latter part of July and the beginning of August with its large panicles of pure white flowers. The Privets are objected to by many on account of the odour of the flowers, but *L. sinense* outdoors has not an altogether unpleasant smell, though the scent is stronger and more disagreeable when the flowers are cut and taken into a room.

The plant is easily propagated by cuttings taken at almost any time of the year, pieces of ripened wood 6 inches to 1 foot in length inserted in the ground outdoors in winter rooting readily, and forming strong young plants in twelve months. These are all the better for an annual cutting down for the first year or two to induce a bushy habit, and to prevent the bare stems in after years that are sometimes seen with this plant.

Bagshot, Surrey.

J. CLARK.

## NEGLECTED GARDENS.—II.

In the previous article on this subject of neglected gardens, I spoke more especially of the attention that must be paid to trees and shrubs that for many years have been allowed to grow uncared for and unpruned.

To-day let us consider the flowering plants themselves and the positions they occupy in the garden that has run wild so long. More than likely if the garden was laid out from thirty to fifty years ago, it belongs to the period when pretentiousness, garishness, and ugliness generally were the main features of garden design. This will probably mean that the ground is very much cut up into tortuous and exasperating pattern beds, and that there exist few of those long wide borders where a wealth of bloom can be got. Small beds mean "patchy" planting, and, com-



THE PEARL BUSH (*EXOCHORDA GRANDIFLORA*) IN THE NURSERY OF MR. NOTCUTT, WOODBRIDGE, SUFFOLK.

cutting east winds in spring. Exposure to the full sun is necessary as maturity of growth is important, flowering as it does from current shoots springing almost from every node of last season's growth. I have counted as many as seventeen flower racemes from a single shoot but 15 inches long, thus showing how freely its blossoms are produced under favourable conditions.

Each raceme is furnished with from six to twelve blooms, each having five rounded petals with a green or brownish disc or centre. The leaves are pale green, slightly obtuse. As maturity of the present season's growth is all important in ensuring a full crop of blossom the following May, it is a



paratively, a poor and mean result. We must have borders if we would grow in those grand broad masses, the glory of our English gardens—our beautiful perennials.

A garden without perennials is like jewellery without the precious stones. Beds are all very well, and if only they are simple enough in design and of sufficient size the plants in them must of necessity be effective; besides, we cannot have a garden consisting only of borders, unless it be a very small one. But do let us make our beds—each one—a definite spot that we may enjoy as such, and not part of a vague and ineffective plan of which we get no clear conception.

We must never forget, however, that in dealing with an old garden we must go forward cautiously. Every garden should have about it an atmosphere of enchantment. Old gardens often have this; it comes partly with the weight of years, partly with the dignity that belongs to those things that have been long established. It must be our care to maintain this greatest charm that a garden can possess, while at the same time we try to efface the signs of long neglect and carelessness.

The soil is now the next subject for consideration. If the garden generally has been neglected we may conclude that the soil has become impoverished, and in many cases too exhausted to sustain in health and vigour the plants we mean to entrust to it. Deep trenching and plenty of fresh leaf-mould and stable manure worked in as the trenching is in progress will make matters better. Of course if part of the old worn-out soil be carted away and fresh brought in to take its place so much the better. Trenching to a depth of 3 feet is none too deep, and its beneficial effect will be apparent for years afterwards. So many of the stateliest and most beautiful perennials are those that seek their nutriment far from the surface, and the deeper their roots can penetrate the less will the plants be affected by summer droughts and winter frosts. Everything that we can do at this stage in the matter of good drainage, suitable soil, and the thorough working of it is of the utmost importance.

We must turn now to the plants themselves. Here again a word of caution is necessary. On no account must we ruthlessly dig up and throw away all and sundry of the plants that already exist in the neglected garden. We must not be in too great a hurry to rid ourselves of these long-established plants, and certainly we should make a point of retaining them until we have studied their habit and growth and have seen them during their flowering period.

New and improved varieties of old favourites are continually coming before our notice. At the same time, beautiful as these are it is not always wise to neglect the old treasures for the latest novelty. Many a well-known favourite may we gladly retain in its older form. Some of the older varieties are more beautiful in every way than the new. More than that, the time has come that some of these treasures are almost impossible to obtain except in their more modern development.

Perennials gain much in beauty by being massed. The larger the garden the more necessary does this become in order that boldness of effect be achieved. A well-planted, well-proportioned group of some one or another of the numerous larger families, such as the Asters or Campanulas, makes a delightful and characteristic feature.

I will remember a beautiful old Surrey garden. A copse of Nut bushes ended in a broad and massive planting of many different varieties of these delightful Asters or—as we like to call them—Michaelmas Daisies. Again, I remember an old garden with a long winding pathway that led from beds and borders, brightly brilliant even with the glory of August flowers, to a walk under the dense shade of forest trees. Now this winding pathway—the link between the sunshine and the shadow—was planted on either side with hundreds of Evening Primroses. I can find no adequate words of praise for this restful and altogether beautiful bit of planting. Not the brightly-hued beds and borders made the marked impression to carry away with one, but that wide dense planting of Evening Primroses in just that portion of the

garden where many toned, gay and brilliant hues would have been out of place.

Rightly or wrongly, I have a theory that for every season of the year there should be some dominant flower in the garden, or in some portion of it, to make the poetry of that particular garden for the time being. In a future article I shall hope to touch on the borders and beds of mixed perennials.

F. M. WELLS.

## THE FLOWER GARDEN.

### CUTTING OVER THE FOLIAGE OF HARDY PLANTS.

**A**FTER many years of observation, I have come to the conclusion that more errors are committed by an injudicious use of the knife than from any other cause. A large number of herbaceous plants are weakened every year through having their flower-stems and large foliage removed prematurely. It is no uncommon thing to see growers cut down stems of Delphiniums close to the ground immediately the flowering is over, also of Sweet Rockets, Pyrethrums, and many other things I could name. Asked why they treated them in this way, the reply would be to clear away the unsightly stems and old leaves. But such people should not grow hardy flowers. Such treatment means a great check to the root. Every good cultivator knows the injury Asparagus sustains when the strong growths are allowed to blow off by the wind, and where is the difference when they cut down the stems and leafage of hardy plants just after flowering?

A few years ago I had an object-lesson in this way when cultivating a big collection of hardy plants for a gentleman who was a devoted lover of open-air gardening, but he was too tidy, and this was the cause of many a plant being treated in an unnatural way. I well remember many a fine Pyrethrum and Delphinium coming up so weakly the following year that they did not bloom. Rockets were great favourites. We grew the Purple, large French White, and the small double Scotch White. One year I grew a fine lot of plants in the reserve garden, removing them to the garden proper the next year to bloom. Immediately the blooming was over I was obliged to remove the flower-stems close to the ground, with the result that it weakened the Purple and Scotch kinds so much that they did not flower the following year. The French White, being stronger and having plenty of leaves close to the ground, did not suffer so much, while a few of the same plants that were left in the reserve garden did splendidly. It may be asked: How are these things to be grown in the flower garden so as to have a neat appearance? Most of the evils in this way arise from not placing those kinds that die down somewhat early in the proper positions. Such things as the tall-growing Delphiniums should be planted behind something coming into bloom later on or amongst evergreens. We have some in our garden growing amongst dwarf shrubs. When in flower they are 2 feet to 4 feet above them, and when over we cut them just below the seed-stems, and thus the stems are not seen, but allowed to ripen off in their own way. Last year I observed these growing amongst Rhododendrons in the pleasure grounds at Bournemouth with grand effect.

The common white Rocket should be placed just behind some annual that is growing up and coming into bloom. I use Phlox Drummondii with good effect, placing a few small spray sticks to keep up the Phlox in a natural way. The early-blooming Pyrethrums, Potentillas, and many other early plants may be so placed that either autumn-blooming annuals or tender plants can be worked amongst them to keep up the display, and also to hide the ripening foliage. Bunches of Sweet Peas, Sunflowers, Cannas, and many other things can be used well for back positions. With regard to the spring-flowering bulbs, I have found it an excellent way to grow these in big clumps, placing a wooden

(Oak) peg to mark the spot, and when these are about to die off have some annuals sown in boxes ready to prick out clumps between these large patches of bulbs. When the autumn comes round the surface-soil from the bulbs may be moved, adding good material to stimulate them. In the spring the spaces where the annuals are grown can be removed and fresh soil added. I will remember a border in a kitchen garden in Norfolk treated in this way. There were flowers from the Snowdrop till the last Michaelmas Daisy was over, and such bulbs as the Muscaris, Iris reticulata, Turban Ranunculus, and scarlet Anemones.

Amongst the best gardens I have seen of late years are those where hardy plants of all kinds, tender plants, and annuals are used together. But to do this effectively judgment and observation must be used both in the selection and treatment. Along the very front rows can be grown many of the mossy Saxifrages and such like, and the lovely bulbs will come through the carpet of green, which keeps the rain from spoiling the early blooms. When these early bulbs are over their leafage can be allowed to ripen and then pulled up, leaving the ground covered with the Saxifrage or whatever is used. Personally, the ripening foliage is not an eyesore.

On the approach of winter some thought should be given to the ripened leafage. When this is removed at the beginning of winter much injury is done to many things should the weather be severe unless some frost-resisting material is put on them. Many herbaceous plants that need slight protection in winter receive it naturally through the summer, leafage dropping down on the ground and protecting the roots. Alstromerias, Montbretias, many Irises, Spireas, and a very large number of kinds that die down are protected by their own leafage. In winter I have been interested in noticing what a grand protection many plants get in this way. Many growers do not succeed with somewhat tender plants owing to the natural protection being removed. When spring comes and the plants are gone over, then this protection may be removed with advantage.

J. CROOK.

### GLADIOLI AT THE SHREWSBURY SHOW.

ON the whole these were not up to the high standard of quality which one usually meets with at this exhibition. In common with most outdoor flowers, the cold, wet, sunless weather has checked the full development of the spikes, and in many cases damaged the flowers. Still, in spite of these unfavourable conditions, some noteworthy varieties were exhibited by Messrs. W. B. Hartland (Cork), Harkness and Sons, J. H. White, Dicksons, Limited, and M. Prichard. Undoubtedly the finest collection came from the first-named grower, which proves that Gladioli find a congenial home in the Sister Isle, as indeed is the case with many other bulbs. It is greatly to be regretted that this fine collection was unnamed, as it contained many striking and beautiful varieties.

When planning colour effects with Gladioli it is of the utmost importance to purchase corms of such named sorts as one may be acquainted with. Too often, however, the temptation to buy "extra fine mixed in separate selected colours" proves too strong to be resisted, but I have found to my cost that amaranth and purple-crimson are apt to steal in amongst the "red and scarlet grounds," and the same kind of thing happens in the other colours. Perhaps, therefore, the names and descriptions of a few of the varieties which I singled out as the best may prove of interest.

*Mme. P. Palmer.*—A bold spike, and very large flowers of a pale rose-pink, suffused with a pleasing shade of carmine-red. There is a blotch of creamy yellow, and an edging of red.

*The Sultan.*—This was noticed in Mr. J. H. White's exhibit. Colour almost a blackish crimson, with a touch of white in the throat which extends in narrow strips part of the way up the flower. Of the same type is Prince Ranjitsinhji, which is dark purple, shaded with chestnut-crimson on the lower segments.



*J. C. Batten.*—A striking bright red flower, with a white blotch, faintly speckled crimson. An excellent spike was shown by Mr. J. H. White.

*Colossal.*—A magnificent Kelwayi variety; vermilion, shaded with pink, and touched with crimson-lake in the centre of the throat.

*A. de la Devansaye.*—A fine bunch of spikes of this noble Nanceianus variety was exhibited by Messrs. Dicksons, of Chester. Its colouring cannot fail to please, being a delightful shade of salmon, while the two lower segments are splashed with straw-yellow and spotted with deep orange.

*Gil Blas.*—This is an old but very good variety, belonging to the Lemoinei section; colour, a pale salmon-pink, shaded with lemon-white, and deep red-brown centre.

*Ministre Pichon.*—An enormous flowered variety of the Nanceianus section, raised by Messrs. Lemoine, and distributed by them in 1900; colour, brilliant carmine-red, the lower segments being blotched with white, spotted and veined with bright crimson. Three grand spikes of this were exhibited by Mr. M. Prichard and one by Mr. J. H. White.

*Belle Alliance.*—A pale shade of lilac, merging to a dark violet on the lower segments, part of which are splashed with sulphur-yellow and speckled with dark violet. This distinctive-coloured variety belongs to the Lemoinei section, and was shown by Mr. Prichard, as also was

*Baron Joseph Hulot*, another splendid Lemoinei variety, with flowers of a rich violet-blue. Space will not permit me to describe several other kinds

whose beauty claimed my attention, such as Nautch Girl, Sir Charles Russell, Docteur H. P. Walcott, and many others.

ARTHUR R. GOODWIN.

ROCK GARDENING.

We shall shortly begin a series of articles on Wall and Rock Gardening, and will first of all make a few general introductory remarks. Those who have fairly spacious rock gardens and wish them to be beautiful places and not merely the receptacles of a quantity of different plants, can only secure such a result by putting upon themselves severe restraint as to the number of kinds to be used at a time. In gardening, as in painting, no picture can be beautiful whose composition is crowded and confused. There are various considerations that influence the choice of the plants that the rock planter will put together, but we think that the following suggestions would be worthy of consideration. First, to determine which are the plants that give us the truest pleasure. Then to consider which of these will group best together and flower at the same time: for, supposing four or five favourite kinds of plants to be grouped or partly intergrouped, it is a great advantage to let them be those that will bloom together and make one complete picture, and to have the intermediate sets of groups to bloom later in their turn. This is a much more pictorial arrangement than to have the plants flowering in scattered irrelevant patches quite unrelated to each other.

Suppose, therefore, that a spur of rock garden is crowned with bushes of *Andromeda floribunda*, and that steep rocks below it are clothed with *Aubrietia* and *Arabis*, and that at their foot in cool peaty ground there is a generous planting of *Primula denticulata*. Here are four capital things of early April, all in full flower together, making one complete picture, and these four are quite enough. The colouring is of the simplest possible and delightfully harmonious, and the whole thing is so good a picture that one dwells upon it, and comes back and back to it to enjoy its beauty in a way that one never does to a more mixed planting of individual objects.

It is, of course, more easy to do in large spaces, but even in small ones the same thing may be done in square inches instead of square feet by choosing plants of smaller dimensions.

Such an arrangement for the pictorial part of a garden by no means precludes the enjoyment of individual plants, but we think it is wiser to have these in a separate place in a series of rectangular raised beds, where each plant may occupy its own pocket, and be as easily visible and accessible as a book on a shelf or a specimen in an economic museum. Such raised beds as are in Messrs. Fröbels' delightful nursery at Zurich could hardly be improved upon. They are perhaps 6 feet wide at the bottom and 15 feet long. They are steeply rock built, and accommodate a large quantity of plants. If the beds are placed east and west as to their length it will give each a shady and sunny side; a ridge of small shrubs at the top would give more shade on the north side. Such beds also



A ROCK GARDEN WITHOUT A PREPONDERANCE OF ROCK AND LABELS.





NYMPHÆA PYGMÆA HELVOLA, ONE OF THE SMALLEST FLOWERED OF THE WATER LILIES AT SANDHURST LODGE.

afford the best opportunity of suiting plants with special soils, for one may be built of limestone, another of granite, another of sandstone, and so on, so that plants from all kinds of geological formations would find themselves at home. The plants in these rock beds would be grown distinctly as samples and labelled, then those that were the best liked and that showed the most aptitude for making good combinations for the rock garden could be increased and brought into the better use.

Labels should never be seen in the beautiful rock garden; they are destructive of all pictorial effect and damping to the sentiment of the truest enjoyment of plant beauty. You want your rock plant to say to you in cheerful sympathy: "I am one of the loveliest of the plants that God has given you for purest pleasure and for your bettering in gladness and thankfulness;" and not merely to inform you with cold official ansterity, "I am *Aubrietia deltoidea* (De Candolle)."

## BRITISH HOMES AND GARDENS.

### SANDHURST LODGE,

THE RESIDENCE OF SIR WILLIAM FARRER.

**A**LTHOUGH not in the ordinary acceptance of the term a great place, Sandhurst Lodge, Berks, is at once homely and delightful. Sir William Farrer is an enthusiastic lover of gardening, and he is assisted by his quiet and earnest gardener, Mr. W. J. Townsend. This charming place is near the Wellington College station of the South-Eastern Railway, and as the visitor walks to the lodge gates there lies before him, sweeping up to the summit some half a mile distant, the famous Wellingtonia avenue, planted some thirty-five years ago by the late Mr. John Walter, and it is interesting to note that the trees on the sandy soil have grown into noble specimens, worthy both of name and place. At the extreme end of the avenue are the heights known as the Finchampstead Ridges, from which is seen a grand

view over North Hampshire country, with dear old Eversley, once the residence of Charles Kingsley, forming part of the picture. The entrance lodge gate, close at hand on the left, leads up a broad, winding road through trees, shrubs in masses, and open expanses of verdure to the house. Fine masses of trees and shrubs embower it on the north-east and west sides, whilst south it looks upon a broad lawn, on which are some charmingly planted flower-beds, and from the elevation are delightful views over beautiful woodland scenery. On the west side is a spacious and well-furnished conservatory. Dotted here and there on the lawn, especially on its southern slope, are numerous plants in

pots, Fuchsias, Pelargoniums, Strep-tosolens, Plumbagos, Heliotropes, sweet-scented Verbenas, *Solanum jasminoides*, scarlet *Salvias*, &c., which are dropped into holes in the turf, where they remain firm and erect. This is a special feature at this place, and its effect is very pleasing. There is a small lawn in front of the gardener's pretty cottage, which is partially hidden behind bowers of climbing Roses, and on this are many fine bush and standard Fuchsias, also sunk in the grass.

A specially attractive feature in the outer pleasure grounds, which run southwards from the lawn, are the several ponds placed one lower than the other, the water from the higher one ultimately passing into the lower one, thus warming it, in which are grown a fine collection of the newer and very beautiful Nymphaeas, for so planted they are more effectively displayed than when in large ponds. The higher pond is chiefly filled with strong growers, especially whites, the less robust ones being planted in the lower ponds. In these they bloom profusely. In some warm

tanks *N. stellata* and other blue forms do well. Beyond the ponds, where small streamlets meander amidst a profusion of flowering plants of a semi-aquatic nature, scarlet *Lobelias* grow luxuriantly, and even seed freely, so much do they like the moisture. Grass walks are a feature here, and beyond are extensive woods, where Bracken or other Ferns thrive luxuriantly, and amidst which broad walks extend long distances and create a beautiful rural retreat.

There are numerous houses devoted to plant culture, and in their respective seasons Mr. Townsend has splendid collections of *Primula obconica*, a fine strain of *Achimenes*, and many other plants. Fruit, too, is well done, inclusive



ROSE-DRAPED WALL AT SANDHURST LODGE.



of Melons and Tomatoes. Roses seem to thrive there luxuriantly, and climbers of all descriptions grow in all directions as though wild. An interesting garden feature close to the pleasure ground is found in three rather long walks, entirely covered with cordon Pear trees arched over. There are many varieties, which are generally planted in groups, but in almost every case carry excellent crops.

In an extensive walled-in garden, the ranges of glass houses and frames being on the upper side, and the centre chiefly devoted to vegetables, there is along the lower side or north aspect a most interesting fruit border some 18 feet wide. This runs the entire length of the garden, and on the wall are Morello Cherries and Plums, and crosswise, at intervals of 4 feet, cordons of Gooseberries, Currants, and Raspberries, remarkable crops being thus obtained.

Of course, to secure them the culture is of the best, but as birds are very plentiful here it is found needful to protect the crops by covering the whole with fish netting from the top of the wall to the ground close to the path in front of the border. As the nets are carried on light framework well above the cordons, and access to the border is obtained at one end, the fruit is well protected, yet is readily gathered. With such poor crops generally elsewhere, here the entire crop this year was a most abundant one. Sandhurst Lodge has all its garden departments well done, and nothing is sacrificed to any one feature.

A. D.

## AN ARTIST'S NOTE-BOOK.

### A NOBLE MULLEIN.

(*VERBASCUM LONGIFOLIUM* VAR. *PANNOSUM*.)

FOR several weeks past this plant has been one of the most striking objects in the herbaceous collection at Kew. It is upwards of 7 feet in height, and of imposing

appearance. The lower 2 feet consist of a dense rosette of handsome leaves, the largest of which are between 2 feet and 3 feet long and 6 inches wide, the smaller and upper ones being scarcely one-third the size of the lower ones. The inflorescence rises from the centre of the leaves, and forms a huge, upright, branched raceme more than 5 feet in length. On the lower portion of the flower-stem about a score of branches are borne, some of which are nearly 3 feet long. The flowers are borne so abundantly as to almost hide the stem, which, together with the leaves, is covered with a dense whitish tomentum. The individual

flowers are yellow, and larger than those of most *Verbascums*, the largest being rather more than 2 inches across. It would make a good wild garden plant. Most *Verbascums* naturalise readily, and this variety being more showy than the majority would be the best to use.

## HERBACEOUS PHLOXES.

(Continued from p. 142.)

I HAVE already spoken of spring propagation, and to this may be added a word on autumn propagation, which is not merely a very successful mode of increase but a quick and certain way also, quite apart from the fact of its dispensing with the cutting down of young plants in spring. In this way also it saves time.

The method is quite simple, and consists first in removing the fading head at the point where branching begins. After a short time young shoots will appear, and these may be plucked out when 3 inches long and inserted in a cold frame for the winter.

twelve young plants, which, if potted, cared for, and planted out in March will be a long way ahead of spring cuttings. It is also a means of utilising what is virtually waste material in the creation of valuable stock. I would say to those who usually plant everything in beds with raised centres that there is nothing worse for these moisture-loving *Phloxes*, which cannot be effectually watered in such beds, as it is not possible to supply the plants too liberally with water and liquid manure. Old beds are much benefited by a mulch in spring of soil and manure in equal parts, well treading this in position that the roots below may more quickly take possession. I will conclude these remarks with a selection of good kinds, giving their heights as established plants and when subjected to good cultivation generally.

### PURE WHITE.

*Albatre*, a large handsome truss, flowers of good size, very smooth and firm petal; 3 feet.

*Diadem*, very pure handsome spreading trusses; 2½ feet.

*Mrs. E. H. Jenkins*, a handsome kind of snowy purity, immense panicles of bloom; from its vigorous and free growth it is certainly one of the best for massing for effect; 3 feet to 3½ feet.

*Sylphide*, in form and substance, is rather superior to the last, and is slightly purer when quite true. Occasionally it is given to sporting, and shows faint stripes of red; fine habit and large head of bloom; 2½ feet to 3 feet.

*Panama*, large, massive, and well-formed branching head; 3 feet.

*Jeanne d'Arc*, creamy white, erect growth, and compact pyramidal truss; 3½ feet.

*Lawrence*, capital white pyramidal truss; 2½ feet.

### SALMON, SCARLET, AND VERMILION.

*Aurore Boreale*, rich salmon-scarlet grand truss; 3 feet.

*Boule de Feu*, fiery scarlet with darker coloured eye; 3 feet.

*Coquelicot*, probably the most intensely coloured of all *Phloxes*, almost vermilion-orange, flowers large, truss medium size, a most valuable sort; 3 feet.

*Etna*, brilliant salmon-scarlet, producing a noble truss of bloom with large-sized flowers; 2½ feet.

*Coccinea*, vermilion-scarlet shaded crimson, habit dwarf and compact, blossoms medium size; 2½ feet.

*Pantheon*, rosy salmon, with whitish centre, truss large and showy, a fine form; 3½ feet.

*Embrasement*, bright orange-scarlet, flowers very large, grand truss, a most effective sort; 3½ feet.

*W. Robinson*. — A beautiful salmon-rose colour; a good garden variety.

### PALE SALMON AND ALLIED SHADES.

*Le Soliel*, soft rose-pink, white centre, very fine; 3 feet.

*Mr. Gladstone*, handsome heads of delicate rose-salmon; 3 feet.

*Le Siecle*, warm rose-pink, white centre, enormous truss, very handsome; 2½ feet.

### WHITE WITH COLOURED CENTRE.

*Croix de Sud*, white, violet centre; 3 feet.

*Countess of Aberdeen*, pure white, carmine



A NOBLE MULLEIN: *VERBASCUM LONGIFOLIUM* VAR. *PANNOSUM*.  
(From a drawing made by H. G. Moon in the Royal Gardens, Kew.)

Generally the original growth perishes, and from the base issues one or more fresh shoots, of which there is no evidence to the naked eye at the time of insertion. By this method each flowering stem of this year may be made to yield six to



eye, very large flower and truss, extra fine variety;  $2\frac{1}{2}$  feet.

*Edith*, white, with purplish centre, a good showy and early variety;  $2\frac{1}{2}$  feet.

*M. Bouquet de la Cyr*, white, rose-carmine centre, very fine head of bloom;  $3\frac{1}{2}$  feet.

*Geant des Batailles*, pure white, with conspicuous crimson eye, handsome truss; 3 feet.

#### PURPLE, LILAC, AND NEAR SHADES.

*Le Mahdi*, purple-violet, large flower;  $2\frac{1}{2}$  feet.

*Robur*, large flowers and good truss, colour purple; 3 feet.

*Sesostis*, royal purple, free branching spikes;  $2\frac{1}{2}$  feet.

*Lord Raleigh*, deep violet self, good form and truss; 3 feet.

*Paul Bert*, violet-blue, with light centre, a showy and handsome kind; 3 feet.

*Eugenie Danzanvilliers*, soft lilac-blue, with conspicuous white centre, a most attractive kind;  $2\frac{1}{2}$  feet.

Apart from this selection there are many good things somewhat intermediate in colour. Those, however, who have no opportunity of inspecting a collection in flower will find in the above sets many of the finest kinds at present in cultivation.

Hampton Hill.

E. J.

## NOTES ON HARDY PLANTS

### NOTES FROM WORCESTERSHIRE.

ARABIS ALEIDA FL.-PL.

**B**OTH in my own garden and in many others this has been in flower all the summer, and now (August 22) there are quite a number of its little spires of bloom to be seen. It seems almost a perpetual bloomer. I have noticed, however, that the individual flowers are neither so pure nor so fine as they are in spring, owing to their centres being green. They are also infested with thrips, for which there seems to be no cure—at any rate on dry sandy soil such as we have in this neighbourhood.

HEUCHERA SANGUINEA × HEUCHERA CYLINDRICA.

This was included in my "gift box" from Chiswick Gardens, and has proved an acquisition. The flowers are reddish pink on the exterior, while the inside of the flower is pinky white, changing with age to the same colour as that of the outside. The deep orange anthers set off the flower and complete its charm. While neither so bright as *H. sanguinea* nor so fine as *H. zabeliana*, it is well worth a place in the herbaceous border.

SAXIFRAGA GRIESEBACHII.

Under this name I have lately received a handsome member of the encrusted section from Mr. F. W. Meyer. According to Messrs. R. Veitch and Son's catalogue it is a recent introduction from Macedonia, flowering in early spring, and "bearing numerous spikes of flowers of a deep purplish carmine colour densely covered with silvery hairs, and bearing numerous bracts of a deep purplish rose colour, tipped with green at the apex." The rosettes in my plant are 2 inches across, almost flat, and charmingly silvered. I am giving it the same treatment as that required by most of the members of the encrusted section—i.e., a sunny position and limestone in the soil.

IRIS LÆVIGATA MAJOR SHIBO.

This is a splendid kind sent out by Messrs. Kelway. It is a dwarf grower, with greyish mauve and white flowers with a yellow blotch, which attain to 8 inches across. One is always glad to make a note of such a striking variety as *Major Shibo*, because named varieties are legion, and, as they never seem to have been classified, these usually convey nothing to the would-be purchaser. Certainly anyone who buys a mixed

collection of these Irises will be lucky if at least 50 per cent. of them do not turn out to be various gradations of magenta. If the Royal Horticultural Society would offer a special prize for a collection of these to be shown at one of the Drill Hall meetings during July or August, the confusion of names in this class might perhaps be lessened. At any rate it would give many a better chance to make comparisons than they now possess. Messrs. Dicksons, Limited, of Chester, who grow these gorgeous plants well, exhibited at the recent Shrewsbury show a fine pure white seedling, with four yellow streaks in the centre of each flower. This is as yet unnamed, and was shown as Seedling No. 45. It attracted considerable attention, and I learn from Mr. John Dickson that it will be distributed shortly.

MONARDA DIDYMA.

The wet cold weather seems to have suited this sweetly-scented old plant, and its brilliant blossoms are now very beautiful. On hot sandy soils it is difficult to grow well, and is often ruined by drought. It proves most effective when grouped between clumps of the Paris Daisies (*Chrysanthemum frutescens*).

Worcestershire.

ARTHUR R. GOODWIN.

### HABRANTHUS ROBUSTUS.

This resembles the *Zephyranthes* in appearance, but is easily distinguished by having not one flowered peduncle as in *Zephyranthes*, but several flowers arranged in an umbel. It is quite as hardy as *Zephyranthes rosea*, and grows freely in a similar position in light sandy or loamy soil, with a slight protection during severe wintry weather. The plant produces its leaves during the autumn; they are about a foot long and a quarter of an inch broad, smooth, and dark green; the peduncle of three to nine tubular flowers, which are bright rosy purple, is stout, about a foot high. The time of flowering is during early autumn. It does not increase so quickly as *Zephyranthes rosea*.

### ZEPHYRANTHES ROSEA.

A LARGE clump of this lovely *Amaryllid* has been in bloom here for over two months. Sometimes the whole plant seems to be ablaze with bright rosy funnel-shaped flowers, while at other times, when the weather is less favourable, there are only a few flowers, but in either case the plant is most attractive with its mass of dark green leaves. Although the plant, which I believe is a native of Cuba, is a little tender in some positions, under proper treatment it rarely suffers. My plant came from the collection of the late Mr. Tyerman, and is remarkably large flowering, bright coloured, and free, and has never missed a year without flowering. The bulbs, contrary to the requirements of this class, are never allowed to dry quite off, consequently they are never wholly without leaves, and though their usual time of flowering is late October, they have invariably flowered here much earlier. The best position for them is against a bank facing south or west, or wall, planted in good loamy soil. With care this species grows quite as well in pots as when planted out; the showy long stalked flowers are very useful for cutting.

Ashford, Middlesex.

G. REUTHE.

### INCARVILLEA DELAVAYI.

FEW hardy perennials in recent years have attracted so much attention as this, which may be described as among the most distinct of recent introductions. So distinct, indeed, is it that a group creates quite a new feature in the hardy garden. From the standpoint of novelty as well as beauty and character the plant is most welcome, and doubly so because it may be grown, with every chance of success, in quite ordinary soils. What is still more to the point is the fact that the species will soon be plentiful, and being a free and great seeder will also be very cheap. This some may view with dismay, yet my own experience in hardy plants is this, that for the good, showy, everywhere-hardy, easily-grown perennials there is a steadily increasing demand, and that it is far more profitable commercially and

more satisfactory all round when a good plant can be sold by the hundreds each year as compared with the plant that few can grow. Some roots of *I. Delavayi* remain quite dormant for a whole year, flowering well, say, in 1900, remaining quite dormant and regarded as dead in 1901, yet springing up and flowering as though nothing had happened in 1902. This is not a solitary case, and I mention it so that readers should not destroy dormant crowns by planting too near. Whatever the cause, I hope the warning may have come in time, and that no stocks of a valuable plant have been ruthlessly and in haste discarded. If this dormant character is general then I would suggest in those gardens where a large number of plants are grown that some, for the sake of experiment and knowledge, be not allowed to flower, but develop growth to the utmost extent. Curiously enough neither leaf nor flower spike have arisen in those I have referred to, which makes the matter more perplexing. With this solitary shortcoming, however, it yet remains a perfectly good plant, and will do so till the richer coloured *I. grandiflora* is plentiful. The latter well merits its specific name, in so far as the flowers are concerned, while in respect to leafage and growth it may be described as less vigorous or bold, while possessing a neatness in its roundly ovate and nearly opposite leaves that at once distinguishes it from the plant which is made the subject of the present note.

E. J.

### VERONICA LONGIFOLIA SUB-SESSILIS.

WHEN sent out by the Messrs. E. G. Henderson nearly twenty-five years ago this plant was called *V. Hendersoni*, and was readily purchased by a few at that time. It is one of the finest violet or violet-purple flowering plants for the present season, and no attempt so far as I know has been made either to improve it (which may be difficult perhaps) or to impart some of its fine colour to the more weedy early-flowering members of the race. Had the plants not been so easily raised from cuttings we should doubtless long ago had varieties of it or the result of crosses with other kinds. In this way plants that are kept in hand by cuttings or division appear to offer little encouragement for improvement by the best of all methods, viz., raising plants from seeds.

E. H. J.

## THE ROSE GARDEN.

### FESTOONS OF CRIMSON RAMBLER ROSE.

**I**T was decided three years ago this autumn to form some festoons and cover them with the above Rose. In one case the supports were of iron and in the other of wood. The iron standards are 5 feet in height, 12 feet apart, with small chains suspended from the head of each standard. The wooden posts are higher, viz., 6 feet out of the ground, the arches being made of small ash rods, fastened to the head of each post and bent over and tied together. In both cases stout plants of the Rose in question were planted. The soil is a stiff loamy one, inclined to clay. They have practically covered the whole of the festoons, and for the past month have been gorgeous masses of flowers, consequently very much admired. The swinging festoons are on each side of a walk in our Rose garden, which leads from a fountain to a marble statue on a pedestal at the other end. They are about 5 feet distant from the edge of the walk. The rising festoons are at the back of a balustrade wall. They stand on an elevated terrace overlooking a portion of a well-wooded bit of the park, hence form a series of beautiful peeps seen through a mass of crimson flowers. Occasionally of an evening, when the setting sun throws its rays at right angles across the picture, the effect is very charming. I ought to mention that the whole of the groundwork from whence Rambler Roses spring is covered with *Rosa rugosa*, which rise to fully



half the height of the standards that form the base of arches. Seen through the open balustrades the occasional flowers, ripening hews, and very handsome foliage of the latter add a good deal to the whole picture, which, except the balustrade, is one that could be formed at a very small cost if set about in earnest. It is intended to substitute light iron in the place of the wood, as the position is a very bleak one, facing north, hence the wooden posts are very apt to be broken down by the winds after the first year or two. I am sorry not to be able to send you a photograph of both forms; the one taken of the latter got damaged.

Tadcaster.

H. J. CLAYTON.

### SOME BEAUTIFUL ROSES.

GRUSS AN TEPLITZ.—This brilliant Rose is giving much satisfaction, especially to those who have used it largely for public parks. At present it seems to be the ideal Rose for massing. It may be that it is a little disappointing in the early summer, but there can be no fault to find with the Rose in autumn, the brilliancy of the colour all through August and right on till the frost comes being most conspicuous. I believe the best treatment is to cut the plants hard back each year, even close to the ground, then we obtain a more uniform growth, which is best fitted for bedding, and the flowers are better from this new wood. A few half-standards of a good white Rose dotted about a large bed of Grüss an Teplitz would produce a pleasing contrast. Suitable whites or creamy whites for the purpose would be Aimée Vibert, Mrs. Bosanquet, Mme. Alfred Carrière, Souvenir de la Malmaison, Baronne de Maynard, Echantress, Augustine Guinoisseau, or Mme. Pernet Ducher.

Mme. Rende de St. Marceau (Tea-scented).—At one time I thought this Rose was too much like Souvenir de Catherine Guillot, but on further acquaintance the colour is more brilliant. The intense coppery red is almost as rich as that of Beauté Inconstante; in fact, it is a more trustworthy Rose, but I fear it has not such a sturdy constitution. Such lovely coloured varieties, however, deserve extra trouble to cultivate and protect, and really a good earthing up with soil or burnt earth suffices. For such Roses I consider it rather an advantage than otherwise if they are pruned back close to the ground each year. They quickly recover in the summer and their autumnal blossoming is all the more charming.

Mme. Ravary and Billiard and Barré.—To the popular Hybrid Tea group varieties of yellow shades are gradually being added to fill a long-felt want. Of all colours, Roses of yellow shades are the most sought after, doubtless because of their rarity. Perhaps I should say rarity as regards bedding kinds, for we already have among climbers many good rich yellows, as, for instance, Henriette de Beauveau, Bouquet d'Or, Rêve d'Or, &c. Mme. Ravary is catalogued as golden yellow, but if we accept Maréchal Niel as a typical Rose of this colour, then Mme. Ravary cannot be so described. I think rich apricot with orange shading is a more appropriate description of its colour. This particular shade is seen in Roses such as Mme. Charles, Mme. Chauvry, and Sunset, but in the case of Mme. Ravary the intense colour pervades the whole flower in its quarter and half-open stage; unfortunately, the fully expanded blossoms pale off to a chamois yellow, which somewhat detracts from its usefulness as a bedder. It will, however, be largely planted until someone combines the rich yellow of Georges Schwartz to the fine sturdy H.P.-like growth of Mme. Ravary. As a standard it is a distinct success, and for pot culture very useful and good. A superb Rose from the same raiser, and almost a pure golden yellow, is Billiard and Barré. I would recommend it as a tall bedding kind, believing that such Roses as this, Gustave Regis, Germaine Trochon, and the like may be profitably employed in this way. A really effective bed could be formed by planting Billiard and Barré in the centre and Mme. Ravary around, or the former could be interspersed here and there as low pillars among a mass of the latter. Billiard and Barré surpasses all Roses of its colour for outdoor culture. The buds are simply delight-

ful. Nothing more beautiful has appeared for some years, and it is such a good grower. It shows what influence the pollen parent can impart to the seedling, both in the way of colour and vigour, the seed parent, Alice Furon, in this case being a very stumpy grower, where as Duchesse d'Auerstadt, the other parent, is of the most vigorous description and of an intense citron yellow colour.

PHILOMEL.

### THE NEW ROSE BEN CANT.

THIS splendid Hybrid Perpetual Rose was given an award of merit by the Royal Horticultural Society on July 22 last, and deserved the honour. It is a pleasure to write about a new addition to that somewhat overshadowed group the Hybrid Perpetual, which has contributed so much brightness to gardens in the past and formed the chief feature of interest at exhibitions. Moreover, Ben Cant is a British-raised seedling. The flowers, as our illustration suggests, are of superb form and finish, broad, robust petals of glowing crimson colouring, and a sweet fragrance. It should appear in many exhibition stands next year. We congratulate the raisers—Messrs. B. R. Cant and Co., of Colchester—upon raising so fine a novelty.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### HISTORY OF THE CHEROKEE ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In a recent number of THE GARDEN a writer asks why this Rose bears this misleading name, at the same time giving some particulars of its history. Through a confusion of species in books many errors are still current concerning the Cherokee Rose, and it is therefore worth while giving a more complete history than has perhaps hitherto appeared. In the first place, Aiton's statement ("Hortus Kewensis," ed. 2, iii., 1811, page 261) that Philip Miller had it in cultivation in 1759 is erroneous. This arose in consequence of the name *Rosa sinica* having been applied to more than one species, and the record in all probability belongs to some variety of *R. indica*. Many names have been given to the Cherokee Rose.

ITS FIRST BOTANICAL NAME.

The French botanist Michaux ("Flora



THE NEW HYBRID PERPETUAL ROSE BEN CANT (CONSIDERABLY REDUCED). \*

Boreali-Americana," i., 1803, page 295) described it under the name of *Rosa levigata*, from specimens collected by Pursh in Georgia, where, at that period, it "inhabited shady woods, climbing to the tops of the tallest trees." Nearly twenty years later, Elliott ("Sketch of the Botany of South Carolina and Georgia," i., 1821, page 566) mentioned that this species had been cultivated in the gardens of Georgia for upwards of forty years under the name of the Cherokee Rose—the earliest record I have found of this popular name. Elliott goes on to say that its origin was still obscure.

Leonard Plukenet was the first to record this species ("*Amaltheum Botanicum*," 1705, page 185), from a dried specimen sent to him by James Cunningham from China, and still preserved in the British Museum. I have not actually seen the specimen, but my friend Mr. J. G. Baker has, and he tells me that it is unmistakable, although it has no flowers. Plukenet designates it thus: "*R. alba chesuanensis foliorum marginibus et rachi medio spinosis*." This then is indisputable evidence that the Cherokee Rose was first introduced into this country from China and in the form of a dried branch; and *Cunninghamia sinensis* commemorates its discoverer and introducer. Assuming Elliott's statement, quoted above, to be correct, it was cultivated in Georgia as early as 1780, and in 1804 it was in cultivation in France from a Chinese source. It was published by Poiret (Lamarck's "*Encyclopédie, Suppl.*," vi., page 284) under the name of *Rosa*



ternata. From a sentimental standpoint it is a pity that this name had been anticipated, as it is so very appropriate, and was given with the knowledge that the real home of this Rose is China. Somewhere about the same date it was described by Bosc in another French publication ("Dict. d'Agric." ed. 2, xxiii., page 280) under the name of *R. trifoliata*. As I have not seen this work I can give no particulars, but it may have been several years later. Poiret states that it had been several years in cultivation but had never flowered.

The next stage in this history brings us back to England, for we find the Cherokee Rose included in Donn's "*Hortus Cantabrigiensis*" (ed. 6, 1811, page 144), and named *Rosa cherokeensis*, but without description and

*Plantarum Horti Botanici Monspeliensis*," 1813, page 137) described this Rose under the name of *nivea*, and it was subsequently (1821) figured under this name by Redouté in his "*Les Liliacées*," ii., page 81, with a coloured plate and one or two additional synonyms, which I shall refer to further on. But I am getting in advance of history and must go back to 1811, when Aiton ("*Hortus Kewensis*," ed. 2, iii., page 261) confused *R. levigata* with *R. sinica* of Linnaeus. Eventually this led to the adoption of the name *sinica* instead of *levigata*, as being more appropriate and signalising its native country, in spite of the latter name having priority. Subsequently, it was ascertained that Linnaeus's *sinica* was the same as his earlier *indica*. Aiton quoted Linnaeus's definition of *sinica* (*indica*) for the "three-leaved Chinese Rose," and this led Crépín and others to the conclusion that Aiton's species could not be the same as *levigata*.

In 1818 a selection of coloured folio drawings of Chinese plants, without names, was published under the title of "*Icones pictae Indo-Asiaticae Plantarum excerptae e codicibus Dom. Cattlei*"; and the third plate is a very good representation of *R. levigata*. These very same plates were reissued in 1821 under the title of "*Icones Plantarum sponte China nascentium e Bibliotheca braamiana excerptae*," and again without either names or descriptions. In this edition the figure of *R. levigata* is numbered 19.

Strange to relate two monographers of the genus *Rosa* shortly afterwards founded a new species on this figure. Trattiniek, in 1823 ("*Rosacearum Monographia*," page 181), described it and named it *R. eucumerina*, adding: "*Species est ab omnibus usquedum cognitiss distinctissima seriem propriam constituens*." Yet he recognised the fact that it was closely allied to *levigata* (Michaux) and *hystrix* (Lindley). Seringe followed, in De Candolle's "*Prodromus*," ii. (1825), page 601, by naming it *R. amygdalifolia*, citing the same figure. Another synonym, *R. triphylla*, was added in Roxburgh's posthumous "*Flora Indica*," ii. (1832), page 515, where it is stated that this Rose was introduced from China into the Calcutta Botanic Garden previous to 1794.

There yet remain the garden synonyms, *R. Camellia* and *R. camellæiflora*. The former, according to Crépín ("*Bull. Soc. Bot. Belg.*," xiv., 1875, page 161), was the name under which Siebold introduced *levigata* into cultivation from Japan. So far as I know, the first record of the flowering of the Cherokee Rose in this country is by Sir William Hooker ("*Botanical Magazine*," 1828, t. 2847). The figure cited was made from a plant that flowered in the Glasgow Botanic Gardens. It was imported from Savannah, bearing the name Cherokee Rose. Crépín ("*Journal R. Hort. Society*," n.s., xi., 1889, page 227), follows Thory, and, in a sense, Trattiniek, in regarding *R. levigata* as constituting, in itself, a distinct section. In the same place Crépín states that *R. Fortuneana* is the issue of a cross between *R. levigata* and *R. Banksiae*.

Another Rose, figured in Braam's "*Icones*,"

cited above, plate 16, has been associated with *R. levigata* by Regel ("*Acta Horti Petropolitani*," v., page 327), who names it *var. braamiana*; but it seems to be *R. involucrata*, Roxb., though wild specimens of this Indian Rose have not been recorded from China. My thanks for several of the foregoing references are due to my friends J. G. Baker and G. Nicholson.

#### SUMMARY OF SYNONYMY.

- Rosa alba chesuanensis*, &c., Plukenet, 1705.  
*" levigata*, Michaux, 1803.  
*" ternata*, Poiret, 1804.  
*" sinica*, Aiton, 1811, not of Linnaeus.  
*" eheroceensis*, Donn, 1811.  
*" nivea*, De Candolle, 1813.  
*" trifoliata*, Bosc, exact date not ascertained.  
*" hystrix*, Lindley, 1820.  
*" eucumerina*, Trattiniek, 1823.  
*" amygdalifolia*, Seringe, 1825.  
*" triphylla*, Roxburgh, 1832.  
*" Camellia*, Hort., exact date unknown.  
*" camellæiflora*, Hort., exact date unknown.

Kew. W. BOTTING HEMSLEY.

#### VIBURNUM CARLESII.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I beg to send you herewith a photograph of a comparatively new or at least very little known plant which I received about five years ago from Corea. I grew it first in a pot, and had it during winter in a greenhouse, but it would not succeed until I heard from the friend through whom I received the plant that it was perfectly hardy and that I should grow it outdoors. I acted accordingly, and since that the plant has grown well; it blossomed the first spring afterwards. I omitted then to cut and press some of the flowers for identification, but only wrote a description of the flower to Kew Gardens, together with some leaves. The reply was that they thought the plant in question was *Viburnum Carlesii*, but could not tell me for certain without having some flowers. Last year I sent the flowers, and received then the reply that it was *Viburnum Carlesii*. In autumn last year I also sent a small plant to Kew, together with a shipment of various articles which were ordered from my firm. The shrub flowered this spring so beautifully here that I had a few branches cut and had the enclosed photograph taken. The colour of the flower is first a pinkish white, which turns into a pure white when fully open, and resembles very much a *Laurustinus* or a *Bouvardia*, and has a delicious perfume. It blossoms here in early spring, together with *Magnolias*, *Pyrus*, *Cydonia*, &c., and it is my belief that it is just as hardy as those in England, and that it should be a valuable addition to European gardens.

A. UNGER (L. BOEHMER AND CO.).

Yokohama.

#### LILIUM HENRYI AND L. TIGRINUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—To criticise any of Mr. Barr's remarks on the subject of Lilies may appear presumptuous, yet I venture to question the assertion on page 118 that *Lilium Henryi* is simply a geographical form of *L. tigrinum*. It is certainly in all respects widely removed from the Tiger Lily—in bulb, manner of rooting, foliage, and habit, and although the flowers are somewhat in the same way there are yet many points of difference. Certainly the person who described the flower of *L. Henryi* as like a yellowish speciosum was quite as near the mark as if he had referred it to *L. tigrinum*; indeed, in Barr's catalogue I see *Lilium Henryi* is thus spoken of:—"A most handsome and elegant Lily, discovered by Dr. Henry in Northern China, the flowers resemble in form *L. speciosum*, but are of a soft orange-yellow colour."

The raised excrescences and the greenish star-like centre common to *L. speciosum* Kretzsch also



VIBURNUM CARLESII.

(From a photograph taken in Japan.)

without history. However, from its designation, we may fairly assume that it was received directly or indirectly from America.

Lindley, in his "*Rosarum Monographia*" (1820), retains both *R. levigata* and *R. sinica* (page 126, t. 16), and describes his *R. hystrix* (page 129, t. 17), though he recognises that all three are very closely allied. But he then had only incomplete dried specimens. In 1837 he figured *levigata*, under the name of *sinica*, in the "*Botanical Register*," t. 1922, from cultivated specimens "of great beauty, grown in the nursery of Messrs. Whitley and Osborn at Fulham." It was there trained to a south wall. At this date Lindley accepted the specific identity of *levigata*, *sinica*, and *hystrix*, and he added several other synonyms.

In the meantime De Candolle ("*Catalogus*



occur in *L. Henryi*. In pointing out the various items of resemblance between *L. speciosum* and *L. Henryi* it is by no means my intention to suggest that this last-named is but a variety of the other, but rather to point out that, in my opinion at least, *L. Henryi* is quite as nearly related to *L. speciosum* as it is to *L. tigrinum*, and that when the several points of difference are taken into consideration it is certainly entitled to the specific rank which has been assigned it. If not, then the entire genus might easily be cut down to about half-a-dozen species. Concerning *L. longiflorum* we are greatly indebted to Mr. Barr for pointing out that the varieties *grandiflorum* and *Takesima* are identical, for a great deal of confusion exists regarding the varieties of the long-flowered Lily.

*Lilium tigrinum splendens*, that is to say, the variety so much grown by the Dutch (and which is a far better pot plant than any of the others), I have, like Mr. Barr, never found among the large importations from Japan, though the double flowered form is now sent from that country.

*Lilium auratum* is in many cases both an erratic and disappointing Lily, in fact, it seems far less trustworthy than it was a few years ago, while the huge importations from Japan contain a large proportion of bulbs greatly inferior to those that were at one time sent here. This may be owing to disease or to increased competition that leads to the bulbs being taken up and sent away before they are mature. Last year, at the Chiswick Lily conference, Mr. George Massee, of Kew, stated that the disease of *L. auratum* was caused by a fungus, and that horticulturists were to blame for not taking precautions to combat it. It is a pity Mr. Massee has not put his knowledge to the test in the Royal Gardens, where there is ample scope, for a practical illustration would have more weight than words.

H. P.

[*Lilium Henryi* was described as a new and distinct species by Mr. Baker in the *Gardeners' Chronicle*, 1888, Vol. IV., page 660, and the plant was described as a new species a good while before it came into commerce, from dried specimens sent by Augustine Henry to Kew in May, 1888. Mr. Baker is still of the opinion that it is quite distinct. In the *Journal of the Royal Horticultural Society*, December, 1901, page 339, Baker says:—"A most distinct and beautiful species." A coloured plate of *L. Henryi* appeared in *THE GARDEN*, March 7, 1891.—Ed.]

### THE BEST ROSES OF THE SEASON.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I think a very useful service would be rendered to planters if some of your correspondents in various parts of the country could be induced to give a list of say twelve of the best Roses that have blossomed with them this season.

Speaking to a well-known gardener recently, I asked him what variety had given him the most satisfaction this year, and his reply was *La France*. As this gardener has charge of a considerable collection, it occurred to me that a useful purpose would be served if the names of about two dozen varieties were furnished by your many correspondents from at least every county of the kingdom.

This enquiry would be for Roses most useful in the garden and not from an exhibitor's point of view. The exhibitor regards the Rose as only useful for one purpose, and the rules as to form would exclude some of the loveliest varieties for the garden. I think I shall not be far out if I say that *Caroline Testout* stands a poor chance of obtaining the medal as the best Hybrid Tea in the exhibition tent, but how superb it is in the garden. No other Rose can approach it for beauty. It is therefore with a view of assisting would-be planters dwelling all over the land that I make

this request, so that they may be assured of a display in their gardens that will give them the utmost pleasure for the longest period. W.

[We hope our readers will help us to make this list. The planting season is approaching, and this help will be appreciated by those who intend to make Rose gardens in the coming autumn and winter.—Ed.]

### A PEAR TREE WALK.

In planting a fruit garden there is much scope for judgment and good taste in arrangement. The first object of the owner of a garden in planting fruit trees, of course, is to bring a return of ample crops of useful produce. At the same time, an experienced planter would bear in mind that a well-grown fruit tree or a collection of them is a beautiful as well as a useful object for the eye to rest on at all times, but especially so when in bloom and in fruit, when they help to invest the fruit garden with an interest and a charm second to none in the garden in spring and autumn.

One of the most attractive and useful ways in which to train the Pear is undoubtedly over pergolas or arches over garden walks. Planted in this way they are pretty to look upon with the fruit hanging down, and they afford agreeable shade to sit or walk under during hot weather. One simple way of constructing an archway of this description (and any ordinary blacksmith can put it up) is by iron hoops thrown over the walk as wide as itself and 8 feet high in the centre, high enough to prevent idle hands from plucking the fruit. The base of these cross arches must be fixed to stones buried in the ground. They should be fixed 9 feet apart, and made of bars of iron  $1\frac{1}{2}$  inches deep by a quarter of an inch wide. These cross arches would be laced and made rigid by horizontal wires being fixed through them at distances apart of 10 inches. The quickest way—and the most interesting also—of covering these arches is by planting single cordon trees on either side at distances apart of 20 inches. By this means the archway is covered in a comparatively short time with fruit-bearing trees, and this style of planting enables the planter to include an interesting number of varieties in a short compass.

Another way is to plant the trees singly, 10 feet apart, by the margin of the walk and to grow them singly as pyramidal columns, and when they become tall enough to bend them over the walk. These will require no supports. By this system of training the archway takes longer to form, but when accomplished will be very handsome, and the trees will yield heavier crops of better fruit, as they are more exposed to light and air than are the cordons planted closer together.

OWEN THOMAS.

### GARDENING OF THE WEEK.

#### KITCHEN GARDEN.

BLANCHING CELERY.

MUCH attention will have to be paid to this important crop for the next two months to keep up a succession of well-finished heads. The earliest planting should by this date be well blanched and fit for use. Celery always blanches much more quickly at this season than later on. The main and principal crops have been much benefited by the past showery weather, and good results may be looked for if they are now properly attended to. All side shoots and deformed leaves should be removed, and on fine days when quite dry small quantities of soil should be placed round it, always bearing in mind that it is a mistake to heap too much round at once. This should be done at least three or four times, and when possible three pairs of hands should be employed to do it, one on each side of the trench, and the other place the soil firmly round the plant with one hand, and with the other hold the leaves tightly together so that the earth is kept from getting between them, always making it as fine as possible. The day previous make quite certain that the roots are thoroughly drenched with water, as good Celery cannot possibly be expected if at any time it is allowed to suffer for want of water. The latest plantations which will be wanted for March and April use should not have any earth placed to them for at least another two months, but the offsets should be removed and the soil stirred up with the Dutch hoe.



THE BEAUTIFUL ARCHED PEAR TREE WALK AT SWALLOWFIELD PARK.



**CELERIAC OR TURNIP-ROOTED CELERY,** which I am glad to say is being grown much more in this country than it was a few years since, should receive every encouragement to make good roots before the winter sets in, as severe weather will injure it. Keep the surface soil constantly stirred, and drench the plants with manure water; it is safe to say hardly too much can be given.

#### CARDOONS,

like Celery, will require to be blanched piecemeal, and unless this is thoroughly done this vegetable, which is much esteemed in some establishments, will be of little use, and to do this successfully use firstly strips of brown paper, secondly hay bands, and finally bank up plenty of soil about them. Copious supplies of water should also be given this crop at the roots.

#### GENERAL SOWINGS.

Make good sowings of French Breakfast, Black Spanish, and other winter Radishes on fine and well-tilled ground. The seed should be sown thinly, and protected against birds.

#### CAULIFLOWERS.

Make another small sowing of Walcheren and Early London on a south border for wintering in cold frames; after raking in strew some finely-sifted wood and cinder ashes over the surface, and protect against birds.

#### CABBAGE.

Make the last plantation if not already done of Coleworts on a warm border; plant thickly, 11 inches or 12 inches apart, and ply the hoe frequently about the earlier plants. Prepare the ground as soon as possible for the earliest bed of spring Cabbage; the land should be heavily dressed with good farmyard manure, and either deeply dug or trenched, the latter for preference. That which has been occupied with spring-sown Onions will come in well for this, and it is always well to arrange this if possible.

#### MUSHROOMS.

Prepare the material and make up beds in the Mushroom house to keep up a succession. Keep the structure cool and moist, and avoid fire-heat.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### THE INDOOR GARDEN.

#### PERSIAN CYCLAMENS.

SEED may be sown at any time of the year, but I have found September is the most suitable period to obtain the strongest and most robust plants. Liberal culture is essential, and the first start should be made in a rich sound loam, with a fair addition of leaf-soil and silver sand. Press this mixture well into the pots or pans, and dibble the seed about 1 inch apart and a quarter of an inch deep, covering the surface with a thin layer of Coconut fibre. This will check rapid evaporation. See that the pots are well drained, and place them in a frame with a temperature of about 50°. Germination is both slow and irregular. Sometimes a few plants will come up long after others have made a good start. Extremes of temperature are injurious to Cyclamens, but they should be given all the air possible to promote a sturdy growth. Last year's seedlings are now growing apace, and should be well supplied with liquid stimulants. Keep a sharp look out for thrips, which is often troublesome as the plants become pot-bound. As the evenings shorten, the lights should be kept on to prevent the plants getting chilled, as this means deformed flowers.

#### NERINES.

Frequent disturbance of the roots should be particularly avoided in the cultivation of these beautiful greenhouse bulbous plants. Top-dressing and weak liquid manure are of material advantage to them as the flower-spikes are being pushed up. The best time to shift these plants into larger sized pots is just before they start into fresh growth. The proper soil for them is turfy loam, leaf-soil, with charcoal and sharp silver sand added. When first potted give them only a little water, gradually increasing the supply as the plants progress.

#### TUBEROUS-ROOTED BEGONIAS.

A sowing made now will furnish young stock to stand the winter. These will flower next spring and early summer. Fill well-drained pots to within half an inch of the rim with a light porous compost of sandy loam and leaf-soil. Sow the seed evenly, and sift over it a mere dusting of fine soil. Place a sheet of glass over each pot, and shade from sunshine, affording an even, moist temperature of about 65°.

#### HIPPEASTRUMS.

As the growth is now showing signs of ripening, gradually withhold water, but these bulbs should never be dust-dry. The plants may be placed in a light, cool, and moderately dry pit during winter, and allowed to rest till starting time.

#### BULBS.

Hyacinths are now coming to hand, and should be potted into 4½-inch and 6-inch pots. A rich, light soil is essential, and should consist chiefly of turfy loam, leaf-soil, and sharp sand. Fill the pots full of the compost, then press the bulb into it. If potted too firmly the bulbs will rise as soon as they begin to grow. If potted too loosely they will not thrive. Plunge them in Coconut fibre, covering them with a few inches of the plunging material.

#### GLADIOLUS.

The varieties of the early-flowering section are particularly suitable for pot-culture and forcing for indoor decoration, and are also invaluable as cut flowers. The spikes when cut will last a long time in water. All the corms of these varieties are small. Place from three to five corms in a 4½-inch pot, give similar soil, and plunge as recommended for Hyacinths. JOHN FLEMING.

*Wexham Park Gardens, Slough.*

### THE FRUIT GARDEN.

#### FIGS IN POTS.

TREES that were forced early, and have since been top-dressed or repotted and otherwise treated as recommended in previous notes, should be now placed outdoors in a sheltered sunny position. The object of this is to thoroughly mature the young wood. This will be accelerated if the root supply of water is limited and the rainfall prevented—by the pots being laid upon their sides in wet weather—from making the soil saturated. If the top-dressing or repotting of the trees was not attended to when advised, it should now be done before the foliage falls and root action has become inactive.

#### PERMANENT TREES.

Those from which the crop of fruit has been gathered and have—as not infrequently happens when the borders are old—made sappy unfruitful wood should now be attended to at the roots. This should be accomplished by making an opening at the end of the border and carefully removing the soil from amongst the roots down to the drainage to within 2 feet or 3 feet of the stem of each tree according to their size and age. Shorten any long and unnecessarily strong roots, rectify defects in the drainage, and cover it with a layer of turves. This done, half fill the vacant space with compost, after which, as the filling proceeds, arrange the roots in layers through the upper portion of the border. The compost, which should be formed of turfy loam, liberally mixed with crushed mortar rubble, wood ashes, and road scrapings, according to its texture, with a little bone-meal or fine bones added, must be made quite firm. This completed, lightly mulch the border, and thoroughly moisten it with tepid water. Lightly syringe the trees daily in fine weather until the foliage falls.

#### MELONS.

Houses containing plants bearing fruit nearing maturity must be carefully watered, giving enough only to keep the soil moist. At the same time guard against permitting it to become dry, for if the plants are allowed to suffer and their foliage flag the flavour of the fruit will be impaired. A continual supply of fresh air should be given, but regulated to agree with the conditions of the

weather, while the supply of artificial warmth and atmospheric moisture must be controlled by similar circumstances.

#### LATE CROPS.

With the decline of solar warmth and shortening days, the vitality of the plants will correspondingly decrease, and naturally become less vigorous and consequently more prone to ailments, causing an increase of vigilance on the part of the cultivator. For very late crops especially a less amount of compost will suffice to meet the plants' requirements, and the demand for water and nutriment will not be so great as is required by earlier plants, while atmospheric moisture must be more discreetly given. On the other hand, artificial heat will be in greater request. The atmosphere should be regulated according to outside conditions, while a constant bottom heat should be kept up. On no account let the plants become crowded with superfluous growth, for it is at this late season most important that the foliage is properly exposed to the sun, and that there is no waste of energy from any cause. It is equally important that the house is kept properly ventilated so that the growths set comparatively firm. Stop laterals at one leaf beyond the fertile blossoms, which fertilise, and limit the plants to two or three fruits to each plant. Canker is a troublesome malady, and plants for affording late crops, owing to the state of the weather, are most prone to attack. A very close, moist atmosphere, especially if the temperature is kept low and the soil wet close up to the stems of the plants, is favourable to it. The best remedy is to promote a circulation of warm, moderately dry air. Apply dry lime or powdered charcoal to the affected stems and keep them dry, as by doing so the crops upon diseased plants may be matured; but plants badly attacked rarely produce fruits of high quality. T. COOMBER.

*The Hendre Gardens, Monmouth.*

## SOCIETIES.

#### CROYDON HORTICULTURAL IMPROVEMENT SOCIETY.

THE usual meeting was held in the society's room at the Sunflower Hotel, George Street, on Tuesday evening, August 19. Mr. Simpson presided, and there was a good attendance of members to meet Mr. J. Lyne, the Gardens, Foxburg, Chislehurst, who gave an interesting lecture on Strawberries, indoor and out. The lecturer dealt with his subject in a most able and practical manner, and his wide and extensive experience in the culture of this delicious fruit and his pleasant way of imparting his knowledge to those present was much appreciated. Mr. Lyne first dealt with outdoor culture, and emphasised the importance of deep trenching and heavy manuring of the ground. Preparation of runners, and planting, and mulching received attention, and suitable varieties were pointed out. Indoor cultivation next claimed attention, and was well handled by Mr. Lyne, proving the lecturer well at home with his subject. Several questions were asked and ably answered by the lecturer, to whom, on the proposition of the chairman, seconded by Mr. P. F. Bunyard, a hearty vote of thanks was given.

#### SANDY AND DISTRICT HORTICULTURAL SOCIETY.

I AM calling the attention of the readers of THE GARDEN to the operations of this society, which on the 28th ult. held its thirty-fourth annual exhibition, because it is unique in its way and worthy of as much attention from the Press as the gardening papers give to Shrewsbury. For genuine human interest I doubt if there is any exhibition held about the country that can compare with the one held in this Bedfordshire village. Everyone interested in country pursuits and living within reasonable distance from Sandy should see the Sandy show and the enormous crowd of persons who attend it.

Sandy is a fair-sized village, a little over forty miles from London on the Great Northern Railway. It lies in the midst of a huge market gardening and agricultural district, without any towns of note near it other than Bedford and Huntingdon, yet the district round pours in its thousands of visitors by road and rail. It is the occasion of the district holiday; residents entertain their friends, and the whole day appears to be given up to the Sandy show, yet there is an absence of anything in the way of side-shows to attract beyond music. Sandy folk will have good music, and crack military as well as local bands are engaged. The show is always held in the small park of Sandy Place, which is very near the railway station, and is, therefore, easily reached. Given a fine day, such as it was on the 28th ult., and by 4 p.m. Sandy Place Park is simply a moving mass of humanity.

The great source of attraction of the Sandy show is that the schedule of prizes, which consists of some 330 classes, comprises something of everything which interests county



people. Division A, open to all, comprises fifteen classes, and among them is one for ten stove and greenhouse plants in flower, which attracts such growers as Messrs. Cypher, Vause, and Finch. There are classes for Roses and Dahlias, which bring to Sandy with their flowers the leading trade growers and exhibitors, and yet there are no large money prizes, really a very modest and yet reasonable adjustment of them. Division B is open to all, but nurserymen and market gardeners are excluded, and here there are ninety-one classes for plants, flowers, fruits, and vegetables. Amateurs have fifteen classes, an amateur being defined as "an exhibitor not being a nurseryman, gentleman's gardener, or growing for sale, and not employing a gardener solely in that capacity." Cottagers have thirty-five classes for their produce; farmers, eighteen; market gardeners—market gardening being the staple industry of the district—forty classes. In addition, there are six classes for floral decorations in flower.

It will be seen, from a recital of the remaining classes in the schedule, how extensively country pursuits and industries, as well as at-home work, are cared for. Specimens of needlework are invited in eight classes; stuffed animals, birds (from which, happily, the kingfisher is excluded), fish, and wood and chip carving in three; honey, butter, eggs, trussed fowls, with loaves of bread from bakers, as well as home-made, in fourteen classes; dogs in sixty-two classes; poultry in forty-nine; pigeons in eighty; rabbits in twenty-nine; cats, separated into long-haired and short-haired, thirty-two classes; and there are five other classes for beagles, judged under Kennel Club Rules. A large number of additional special prizes are offered for dogs, and it must be obvious a large number of tents are required to house the exhibits, also judges to make the awards.

The public being admitted at noon, the tents immediately become crowded, rendering note-taking a practical impossibility. Mr. Cypher, of Cheltenham, was first with ten stove and greenhouse plants in flower; Mr. W. Finch, Coventry, with a charming group; the veteran Thomas Lockie, of Diddington Hall Gardens, with six superb Cockscombs; Messrs. Harkness and Co., Hitchin, with forty-eight cut Roses and eighteen Tea-scented; Mr. C. Bright, Cambridge, with twenty-four spikes of Gladioli; Mr. S. Mortimer, Farnham, with thirty-six blooms of show Dahlias; Mr. Tranter, Henley-on-Thames, with twenty-four blooms; Messrs. Keynes, Williams, and Co., Salisbury, for twenty-four blooms of Cactus Dahlias, shown on boards, and twelve bunches of six blooms each; Mr. John Walker, Thame, with twelve bunches of pompon Dahlias; Messrs. Harkness and Sons, Bedale, for twenty-four bunches of hardy and bulbous plants; and Mr. F. M. Bradley, Peterborough, with twenty-four bunches of Sweet Peas. All the foregoing exhibits were highly meritorious. Excellent fruit and vegetables were shown; high quality is necessary at Sandy to win prizes.

A few trade exhibits were well worthy of notice. Mr. John Green (Hobbies and Co.), Dereham, had a very fine collection of Cactus Dahlias and other flowers, which was awarded the silver-gilt medal of the society, and certificates of merit were awarded to Cactus Dahlias Winsome (a charming white) and Hetty Dean; also to Sweet Pea Dorothy Eckford and Everlasting Pea (*Lathyrus latifolius albus grandiflorus*), both shown in superb character. Mr. W. B. Child, Acock's Green, had a fine collection of hardy flowers, and received the same award. Silver medals were awarded to Messrs. Harrison and Son, Leicester; W. and J. Brown, Stamford; Harkness and Co., Hitchin; and F. M. Bradley, Peterborough, for attractive collections. Certificates of merit were awarded to Cactus Dahlias Clarence Webb (soft rosy salmon) and Coronation (brilliant red), from Messrs. Keynes and Co.; and show Dahlia Lilac Queen (a pleasing shade of lilac), from Mr. S. Mortimer.

The weather was fine, though somewhat cloudy, and there was a record attendance. One main secret of the success of this show is that there are district committees or agents in all the towns and villages within a radius of about twenty miles.

R. D.

#### NATIONAL DAHLIA SOCIETY.

##### ANNUAL SHOW.

The committee of the above society had no reason, having regard to the effectiveness of their annual display, to regret the change from the Crystal Palace to the Drill Hall, Westminster; the exhibitors, too, must have felt gratified not to have to undergo the journey through London to Sydenham. The Drill Hall was filled to overflowing with representatives of the genus Dahlia. The large and symmetrical show and fancy varieties were in good force, notwithstanding that the season has been unfavourable to their development; the Cactus, Pompon, and single varieties were very good, and in the collection shown by Messrs. H. Cannell and Sons could be seen examples of the latest addition to the types, viz., President Viger, a large crimson single form with a collar of small white petals round the yellow disc, and another single form having in the centre a cushion of quilled florets. Whether these two departures will ever "catch on" remains to be seen; at present the overpowering form is the Cactus, and of the huge array of Dahlias seen in the Drill Hall the Cactus type formed one-half of the whole bulk. It is a section which grows with surprising rapidity; new varieties spring up on every hand, and a very large number of seedlings were submitted for certificates. The committee were commendably careful in granting their certificate of merit to new varieties, and of those which gained this distinction very few indeed secured an unanimous vote; the majorities in some cases were very small. There were a few good new Pompon and single varieties, and also of the show section, and certificates of merit were only sparingly given to them.

The trade exhibits were ranged round the sides of the hall, leaving the tables in the centre for the competitive exhibits. The arrangement of these by Mr. S. T. Wright was highly favourable to the prosecution of the work of the judges, and it was got through with commendable rapidity. All the



SILVER INKSTAND PRESENTED BY THE MARQUIS OF SALISBURY TO HIS GARDENER, MR. G. NORMAN, V.M.H. (See "The Garden," August 30, page 143.)

seedlings were exhibited apart from the competitive exhibits, but the condition of some of them by the time they came before the committee was of a nature to excite commiseration; they hung their heads as if too well aware of their radical weakness of stem.

The nurserymen had five classes for show and fancy Dahlias in which they could compete. Mr. John Walker, Thame, Oxon, was placed first with forty-eight blooms, distinct. The following were selected as the finest blooms in the stand and as affording a good selection: R. T. Rawlings, Majestic, James Cocker, John Hickling, Purple Prince, William Powell, Wm. Keith, Imperial, John Walker, Arthur Rawlings, Marjorie, Sailor Prince, John Standish, Watchman, Victor, Duke of Fife, Golden Gem, Kathleen, Plutarch, Mrs. W. Slack, Dr. Keynes, Queen of the Belgians, John Bennett, Mabel Stanton, Nubian, Mrs. Saunders, and Muriel Hobbs. Mr. S. Mortimer, Farnham, was placed second; he had good representatives of Criterion, Wm. Powell, Archie Mortimer, James Cocker, Harry Turner, Victor, Mrs. D. Johnson, Matthew Campbell, Sunset, and Rosamond. Mr. W. Treseder, Cardiff, was third. With thirty-six varieties, Mr. Walker was again first; his leading blooms were R. T. Rawlings, James Cocker, J. Hickling, Imperial, Arthur Rawlings, Queen of the Belgians, Chieftain, Mrs. Fisher, Golden Gem, Marjorie, John Walker, J. T. Saltmarsh, J. T. West, W. Powell, and Duchess of York. Mr. S. Mortimer was again second, and Mr. W. Treseder third. With twenty-four varieties, from exhibitors not showing in the two previous classes, Messrs. J. Cray and Son, Frome, a firm which is rapidly coming forward as successful exhibitors of Dahlias, were first, having—with very little change, indeed—the varieties already named; and Mr. F. W. Seale, Sevenoaks, was placed second. With eighteen varieties Messrs. Cray and Son were again first and Mr. Seale second. There was but one trade exhibitor of twelve blooms, viz., Mr. J. R. Tranter, Henley-on-Thames. He had a pretty light variety, Florence Tranter, in fine character; also T. W. Girdlestone, J. T. West, J. R. Tranter, Earl of Ravensworth, Dr. Keynes, &c. The first prize was awarded to this stand.

Then followed, in the order of the schedule, the Cactus, and the classes for eighteen and twelve bunches made a most imposing bank of bloom, and several highly promising seedling were exhibited among them. The first prizes were awarded to Messrs. James Stredwick and Sons, Silverhill, St. Leonards, one of the most successful raisers of new varieties in the present day, but it was a near thing between him and Messrs. Keynes and Co., Salisbury. Mr. Stredwick had fresh and bright bunches of Tasmania, pale yellow; Eva, white; Mary Farnsworth, delicate primrose tipped with white; Etna, lilac; Raymond Parks, bright red; Clara, white; H. F. Robertson, pale yellow; Mrs. E. Mawley, Bruce, primrose centre deeply tipped with rosy salmon; Miss F. M. Stredwick, a highly promising white; Vesta, lilac-pink; J. W. Wilkinson, and Uncle Tom. Messrs. Keynes and Co., who were second, had Ophir, Clarence Webb, a fine new variety of 1901; Mrs. J. W. Jackson, dark; Columbia and Gabriel, two very striking varieties, being tipped with white on dark grounds; Coronation, bright orange-red; Mrs. Clarke, Prince of Orange, bright orange-red; Mrs. J. J. Crowe, Maid of Kent, pale rose; Spotted Queen, white; Mrs. Carter Page, &c.; third, Messrs. J. Burrell and Co., Cambridge, who had some highly promising novelties in his stand. With twelve bunches Mr. John Walker was placed first; he had Lottie Dean, a pleasing salmon-tinted variety; Mrs. E. Mawley, Lord Alfreton, Mrs. Carter Page, J. F. Hudson, Aunt Chloe, Galliard, Lord Roberts, a most useful white; J. W. Fife, crimson-purple, a shading of colours found in very few Cactus Dahlias, &c.; second, Mr. C. Turner, Slough, who had Meteor, Vesta, Lyric, Zephyr, and Uncle Tom in very good character.

Then came boards of Cactus varieties as in the first five classes, some very fine blooms being staged: With forty-eight blooms, Messrs. J. Stredwick and Son were placed first with excellent examples of Mabel, white; Mrs. Winstanley, Hercules, Comet, yellow striped with crimson-purple; Etna, Clara, Mary Farnsworth, Miss F. M. Stredwick, Marjorie, Gabriel, J. W. Wilkinson, H. F. Robertson, Aunt Chloe, Eric, Ringdon, Friar Tuck, &c.; Messrs. J. Burrell and Co. were second, also with admirable blooms, having in excellent form Phoenix, Decima, Mrs. E. Mawley, Ianthie, Sheen, Zoe,

J. W. Wilkinson, Alpha, Crispin, Britannia, Columbia, Mrs. J. P. Clark, Mrs. Hobart, Olive, and Richard Dean, a fine bloom of this, one of the leading novelties of last year. This stand included several highly promising novelties. Messrs. Keynes and Co. were third. With twenty-four blooms Mr. W. Treseder, Cardiff, was first, and this stand afforded a good representation of the leading varieties in commerce, such as Britannia, Loyalty, J. H. Jackson (a fine dark), Bernice, Galliard, Up to Date, Lottie Dean, Alpha, Vesta, Uncle Tom, Mrs. E. Mawley, &c.; second, Mr. W. Baxter, florist, Woking.

The following class for twelve varieties of Cactus Dahlias, six blooms of each, shown in vases with any suitable foliage, grasses, or berries, was one of the most attractive features of the show, but in order to account for the upright character of the blooms it may be stated they were allowed to be stiffened by the use of wire. Mr. F. W. Seale, Sevenoaks, was most deservedly placed first, the vases being arranged upon a white cloth. The leading varieties were J. H. Jackson, Mrs. J. J. Crowe, Viscountess Sherbrooke, Britannia, Florsdora, Jealousy, Starfish, Vesta, Galliard, Uncle Tom, and Lord Roberts. Messrs. Keynes and Co. were second. They had excellent bunches of Coronation, Lord Roberts, Lyric, Clarence Webb, R. Dean, Atlas, Night, and Mrs. J. J. Crowe. Messrs. J. Cheal and Sons, Crawley, were third.

The Pompon varieties, with their attractive symmetrical flowers, followed next. For twenty-four varieties, ten blooms of each, Mr. C. Turner, Slough, took the first prize with a very pleasing selection of small, even blooms, and this stand afforded an excellent selection of some of the best in the section, such as Fosco, Talis, Bacchus, Lilian, Adelaide, Douglas Cyril, Monna, Jessica, Mephisto, Daisy, Elsa, Darkest of All (nearly black), Nerissa, Galatea, Buttercup, Emily Hopper, and Snowflake as the best. Mr. F. W. Seale came second. He had, differing from the foregoing, Captain Boyton, Ganymede, Hyppatia, Nellie Bromhead, &c. With twelve bunches of a similar size, Messrs. J. Burrell and Co. were placed first, having, in their best character, such leading varieties as Nellie Bromhead, Bacchus, Violet, Emily Hopper, Daisy, Nerissa, Distinction, Ganymede, and Jessica. Messrs. J. Cray and Sons were second, and Mr. John Walker third.

Then followed the single varieties, and they also formed a delightful feature set up in bunches of ten blooms, the first prize falling to the lot of Mr. F. W. Seale, who had charming bunches of Percy Bucknell, Miss Zuleima, Girlie, Ted Seale, Yellow Queen, Adonis, Royal Sovereign, Victoria, Oceana, Yellow Perfection, Robin Adair, Jeanette, Urban Youens, Beauty's Eye, The Geisha, &c.; Messrs. J. Cheal and Sons were second; they had very pretty bunches of Duchess of Marlborough, Miss Morland, Cicely, Victoria, Hilda, Princess Beatrice, Girlie, Miss Girdlestone, W. Parrott, Naomi Tighe, &c. With twelve bunches, Mr. J. Walker was first, he had capital blooms of The Bride, Elsa, Fascination, Robin Adair, Columbine, Leslie Seale, Miss Roberts, &c.; Messrs. J. Cray and Son were second.

Then followed certain classes for amateurs, classes which at one time excited a great deal more interest than they do in the present day. With twenty-four blooms of show and fancy Dahlias, Mr. Thomas Hobbs, Downend, Bristol, was placed first with excellent examples of the Rev. J. B. M. Cann, Mrs. Langtry, the Rev. T. S. Ware, Sailor Prince, Arthur Rawlings, Southern Queen, R. T. Rawlings, Dr. Keynes, Shotesham Hero, Earl of Ravensworth, Marjorie, Prince of Denmark, &c.; Mr. Thomas Austiss, Brill, Bucks, was awarded the second prize. With eighteen blooms, Mr. S. Cooper, Chippenham, was first; and Mr. A. Parker, Ivyhatch, Sevenoaks, was second, showing mostly some of the foregoing varieties. With twelve blooms of show Dahlias only, Mr. H. Blundell, gardener to Mrs. Harris, Orpington, Kent, was placed first with good blooms, being the only exhibitor. With six blooms of show varieties, Mr. E. Jefferies, Langley, Chippenham, was first; and Mr. A. Parker second.

The best twelve blooms of fancy Dahlias only came from Mr. S. Cooper, who had in good form Lottie Eckford, Sunset, Dandy, Frank Pearce, Salamander, Peacock, Mrs. J. Downie, Watchman, and Mrs. Saunders. Mr. T. Anstiss was second. With six blooms, Mr. T. Hobbs was placed first and Mr. A. Parker second.



Cactus Dahlias were numerous shown by amateurs. The best twelve bunches, six blooms of each, were from Mr. L. McKenna, Waltham St. Lawrence, Twyford, Berks, who had in good character Stella, Britannia, Mrs. E. Mawley, W. Jowett, Lord Roberts, Innovation, &c. Mr. T. Peters, Baldslow, Hastings, was second, with nine varieties in bunches of three blooms. Mr. P. W. Tulloch, Newchurch Road, Hove, was first; his best bunches were those of Ajax, Galliard, Lucifer, Loyalty, Mrs. E. Mawley, P. W. Tulloch, and Alpha. Mr. H. L. Bronsson, Sidcup Place, Kent, was second. With six bunches, Mr. S. Cooper won the first prizes. With eighteen blooms of Cactus Dahlias, shown on boards, Mr. H. A. Needs, Horsell, Woking, was first, having finely developed flowers of leading varieties, especially of Alpha, J. F. Hudson, Mrs. J. J. Crowe, Eclipse, Mrs. H. J. Jones, J. W. Wilkinson, Cornucopia, &c. Mr. J. Bryant, Salisbury, was second. With twelve blooms, Mr. L. McKenna came first, and Mr. H. Brown, Luton, second.

With twelve bunches of Pompon Dahlias, of which there were five stands, Mr. A. Brown, Luton, was first, and Mr. W. C. Pagram, Weybridge, second. Mr. A. Brown was also first with six bunches; and Mr. S. Cooper was second.

With six bunches of single Dahlias, ten blooms in a bunch, Mr. J. F. Hudson, Gunnersbury House, Acton, was first. He had, in excellent character, Donna Casilda, Tommy, Leslie Seale, Columbia, and Aurora. The Rev. S. S. Pearce, Woodstock, Oxon, was second. With six bunches, six blooms of each, Mr. E. Mawley, the president, Rosebank, Berkhamstead, was first, and the Rev. S. S. Pearce second.

Baskets of Dahlia blooms made a charming feature, Mr. R. Edwards, Oxford, Sevenoaks, taking the first prize, having yellow and salmon Cactus Dahlias, nicely arranged with foliage; Mr. H. A. Needs was second; he had yellow and red Cactus; Mr. F. W. Fellowes, Luton, was third.

The best vase of twelve blooms came from Mr. R. Edwards; he had Cactus Dahlia Britannia nicely arranged with bronze and green foliage; Mr. F. G. Oliver, 97, Tollington Road, was second. With three vases of Cactus Dahlias, six blooms of each, arranged with foliage, of which there were six exhibitors, Mr. H. A. Needs was first, he had a vase each of white, red, and maroon colour; Mr. A. Taylor, East Finchley, was second, with mixed colours; and Mr. R. Edwards third, with a vase each of red, yellow, and salmon.

There were three classes for maiden growers who had never won a prize at a show of the society. Mr. H. S. Stevens was first, with six blooms of show Dahlias; Mr. H. Brown, with six bunches of Cactus; and Mr. G. Quinlan, with six blooms of Cactus.

Mr. W. Treseder took the first prize with a shower bouquet of Dahlias, using yellow flowers well distributed with foliage; Mr. F. W. Felton was second with red and maroon blooms; and Messrs. Jones and Son, Shrewsbury, third with yellow and dark, but too much overburdened with foliage.

Lastly came a class for six bunches of fancy single Dahlias, *i.e.*, varieties whose florets are striped, tipped, or edged. Mr. F. W. Seale was placed first with Duchess of Marlborough, Alice Seale, Victoria, Adonis, Urban Youens, and Columbine. Mr. J. F. Hudson was second; he had Fairy, Phyllis, Madge, Hilda, Girlie, and Northern Star.

Trade exhibits comprised a very large and representative collection of Cactus Dahlias, finely arranged, from Mr. John Green (Hobbies and Co.), Dereham; and a representative collection of nearly 180 bunches from Messrs. H. Cannell and Sons. Messrs. Cutbush and Sons, Highgate, had a collection also. There was an interesting one from Messrs. Barr and Sons, King Street, Covent Garden, a larger one of a decorative character from Messrs. Jones and Son, Shrewsbury, and one from Messrs. Smith Brothers, Upper Norwood.

Seedlings will be reported upon next week.

## ROYAL HORTICULTURAL SOCIETY.

### ORCHID COMMITTEE.

Present: H. J. Veitch, Esq. (chairman), Messrs. H. J. Chapman, Jeremiah Colman, F. W. Ashton, W. H. Young, W. Boxall, W. H. White, W. B. Latham, F. Sander, de B. Crawshaw, H. P. Tracy, W. Cobb, J. W. Potter, J. Douglas, J. W. Odell, T. W. Bond, E. Hill, and H. Ballantine.

The following received the first-class certificate:—*Odontoglossum* × *wilckeanum* *rothschildianum*.—A very fine form, in which the sepals are of a creamy white tone and deeply and acutely notched at the margin. The whole flower is heavily barred and blotched with chocolate. The fringed lip is covered with a glossy brown blotch to one-half its length. From Norman Cookson, Esq. (gardener, Mr. H. J. Chapman).

*Laelio-Cattleya Cooksonae*.—This is the result of crossing L. C. Clive and Cattleya labiata, and is a handsome as well as distinct novelty. The sepals are rosy lilac and quite self-coloured, while the lip is of crimson-purple, interspersed with rosy purple, on which the pure white column is seen to advantage. The entire lip is overspread with a velvet-like sheen, that gives the impression of much richness and substance generally. Shown by Norman C. Cookson, Esq., Oakwood, Wylam-on-Tyne.

*Odontoglossum* × *crawshayanum* (Hallii × harryanum).—This was unfortunately removed before a description was obtained. It was shown by de B. Crawshaw, Esq., Rosefield, Sevenoaks.

The following received the award of merit:—

*Cattleya schofieldiana* Hesse variety.—The sepals are about 3 inches long, oblong-ovate, yellow, freely spotted with crimson. The lip is widely fringed at the margin, and coloured rosy carmine on the inner portion. A distinct and showy form. Shown by W. P. Burkenshaw, Esq., Hesse, near Hull (gardener, Mr. Barker).

*Oncidium Forbesii* var. *Bradshawae*.—This is virtually an albino form of O. Forbesii, yet in a sense imaginary, seeing the flowers are of a yellow tone, in which also is reflected the well-known markings of the typical plant. It is one of the surprise-packets that now and again appear among imported Orchids, and is doubtless a welcome addition to its section. The plant shown was quite small, yet unique

of its kind, and we may look with confidence to see much larger flowers as the plant gains strength. Shown by Messrs. Stanley Ashton and Co., Southgate.

*Cypripedium hybrid seedling*, resulting from the crossing of C. rothschildianum and C. Curtisii, the first-named being the male parent. Sepals purple, with ciliated margins, the dorsal sepal showing the effect of the male parent, while the labellum was that of a much improved Curtisii. It transpired, however, that the same plant has been produced previously from the same parentage, when it was named C. A. de Laresse, by which name, by order of priority, it will be known. The leafage is very handsome, and the plant very strong and vigorous. It was raised and exhibited by Mr. W. B. Latham, Botanical Gardens, Birmingham.

*Laelia Iona*, Westfield variety (*Tenebrosa* × *pumila* var. *dayana*).—Shown by F. Wellesley, Esq., Westfield Common, near Woking.

A botanical certificate was awarded to *Acrostichum concinnum*, a neat little plant, with white flowers borne on quite hirsute pedicels. Shown by Mr. E. Kromer, Ruraima Nursery, Brandon Hill, Croydon.

### FLORAL COMMITTEE.

W. Marshall, Esq. (chairman), and Messrs. C. T. Drury, H. B. May, James Walker, R. Dean, James Hudson, J. F. McLeod, Wm. Howe, C. R. Fielder, W. Bain, G. Renthe, Charles Dixon, E. T. Cook, Charles E. Pearson, H. J. Jones, E. H. Jenkins, W. J. James, Harry Turner, and J. Fraser.

The following received the award of merit:—

*Sterculia russelliana*.—An excellent plant for table and general decorative work. In appearance and effect it is Aralia-like, but has plain not ribbed leaves, and the latter are of a pale glaucous hue. Shown by Mr. J. Russell, Richmond.

*Rose Peace*.—A very free flowering Tea Rose, sweetly scented, and of a creamy shade throughout. The variety has the habit of G. Nabonnad. From Mr. G. W. Piper, Uckfield, Sussex.

*Pea Dorothy Eckford*.—This appears to be the fixed name of a good white Sweet Pea, probably the best white so far. Shown by Hobbies, Limited, East Dereham, Norfolk.

*Thijsa elliptica* *pygmaea aurea*.—In its dwarf compactness of growth this resembles the golden Retinospora, and with just the same widely-set base. An attractive and good plant. Shown by Mr. Charles Turner, Royal Nurseries, Slough.

*Ceanothus Indigo*.—This is quite a descriptive name for a finely-coloured form, quite a good shade of deep blue, and like many others very free flowering. Shown by Mrs. W. H. Burns, North Myms Park, Hatfield (gardener, Mr. R. C. Fielder).

*Nymphaea Mrs. Ward*.—This is virtually a rose-coloured N. stellata, having the pointed petals and general character of that species, with nicely tinted flowers of a rose-pink shade. Exhibited by Leopold de Rothschild, Esq., Gunnersbury House, Acton (gardener, Mr. James Hudson).

### FRUIT COMMITTEE.

A. H. Pearsoo, Esq. (chairman), and Messrs. G. Relf, A. Dean, W. Bates, F. Lane, H. Eslog, H. Markham, H. Baldwin, and S. Mortimer.

Very little came before the committee on this occasion. A cultural commendation was awarded to Mr. G. Shawyer, Cranford, Hounslow, for Tomato Cranford Prolific. This is a very showy kind, and evidently free setting in a by no means good season. The fruits were from seven to ten in a spray of good size, firm, and of fine colour. It is for all practical purposes quite a smooth kind. Several Melons were also before the committee.

"Cherry" Plums were shown in three or four kinds by Sir W. Gilbey, Bart., Elsenham, Essex. The colours were yellow, red, and crimson. In size and form the fruits are attractive at sight, and in this way would make a good appearance at dessert. The flavour, however, is not very good.

\* \* The report of the Royal Horticultural Society of Ireland has been unavoidably held over until next week.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—*Tempus Fugit*.—1, Rose Duchesse d'Auerstadt; 2, Anna Olivier.—B. E.—Bog Pimpernel (*Asagallis tenella*).—J. H.—1, Rose The Garland; 2, Rose Mme. d'Arbilly.—R.—1, *Raphiolepis japonica* (ovata); 2, *Lachenalia pusilla*.—A. C. B.—*Homogyne alpina*.—*Inquirer*.—*Astilbe rivalaris*.—J. R. D.—*Japan Knotweed* (*Polygonum cuspidatum*).

**Earwigs to destroy** (Miss E.).—We have no garden pest more difficult to deal with than the earwig, and we know of no better way of destroying them than by trapping, either by Bean stalks cut into short lengths and placed amongst the branches of the trees or by placing a bit of fruit or a small piece of Carrot inside a flower-pot along

with a bit of hay or moss for cover. They usually enter these traps freely and may be destroyed in this way. The earwig dislikes damp situations, and we have known them compelled to shift their quarters by copious and persistent application of water. If one position does not please them they soon migrate to another. If the old wall has deep crevices between the bricks likely to afford them shelter and encouragement it should be pointed over.

**Roses for New Zealand** (SQUAK).—September and October are considered to be the best time of year in which to despatch Roses to this part of the world. The sap is then going down, and consequently the plants travel in the best possible condition. As you only propose to send one or two, we should advise you to procure pot-grown plants, if possible, on their own roots. Climbing varieties most appreciated in New Zealand are Climbing Devoniensis, Rêve d'Or, Bouquet d'Or, Gloire de Dijon, Lamarque, Mme. Berard, and Cheshunt Hybrid. You could not send your friend a better reminder of the Old Country than a Rose and Climbing Devoniensis, being of English origin, would perhaps be the best variety.

**Propagating scarlet Rhododendron** (A. P.).

Cuttings of this class of Rhododendrons are very difficult to strike, hence the only mode of increase open to you is grafting. For this purpose the best stocks are young seedling plants of Rhododendron ponticum, about the thickness of a small pencil, which have been potted up some time previously. The operation is best carried out in July and August, according to the condition of the scions, which should be formed of the present season's shoots just as they are becoming woody. Side grafting is the method generally followed, and the head of the stock should be left untouched, or, at all events, only shortened back for convenience sake. Take care that an exact union is effected, as in this respect the Rhododendron is very particular; tie securely in position, then cover the point of union with grafting wax, and place in a close and shaded frame. Even then it will take about six weeks for a union to take place, and after all you must not be surprised if your percentage of successes is small, as Rhododendrons are not easy subjects for an amateur to manage.

**Peaches to prune and Plum leaves diseased** (HOPE).—Your Plum trees are evidently suffering from a severe attack of the Pear and Plum blight, a virulent fungus, which, if not destroyed, spreads rapidly. It is difficult to account for its presence; it may have been communicated by other trees (some conifers are subject to it) adjacent to the wall. In any case the affected leaves should be cut off and burnt, and the trees washed over with water to which lime and sulphur has been mixed in the following proportion: To two gallons of water add half a pint of sulphur, the same of quicklime, also a wine-glassful of soft soap. (The water should be allowed time to clear.) It should never be forgotten that the best way to prevent the attacks of disease or insects on fruit trees is to maintain them in robust health. When these conditions are present it is very seldom they suffer, but once in indifferent health they are a prey to disease and insect-pests. Gunning is usually caused by defective stoning. On cutting the fruit you will most likely find the stone more or less decayed. The Peach trees can be safely moved as soon as the leaves have fallen. The blight is caused by chills from cold weather in spring and early summer. By removing the trees to a warmer position your trees, we hope, will be spared this infection in future. The pruning had better be deferred until January. The shoots of the current year's growth should not be cut at all, only thinned out where too crowded.

**ERRATUM.**—A mistake occurs in the report of the Shrewsbury show, top line, middle column, page 155. For greasy, read green.

HER MAJESTY THE QUEEN has been graciously pleased to accept the dedication of Mr. H. Inigo Trigg's work on "The Formal Gardens of England and Scotland," the concluding part of which will be shortly issued to the subscribers by Mr. B. T. Batsford.

### GARDENING APPOINTMENTS.

J. E. SADLER, who has represented Messrs. James Backhouse and Son, of York, for upwards of twenty years, has joined the staff of Messrs. Richard Smith and Co., nursery and seed merchants, Worcester, whom he will represent in the future.

MR. WILLIAMSON, for the past thirty years gardener at Tarvit House, N.B., becomes, next November, lecturer on horticulture in connexion with the East of Scotland Agricultural College.

### CATALOGUES RECEIVED.

*Bulding and other Plants*.—Wood and Ingram, Nurseries, Huntingdon.

*American Trees and Shrubs*.—J. M. Thorburn and Co., New York, U.S.A.

*Bulbs, Roots, and Orchids*.—Dammann and Co., San Giovanni a Teduccio, Naples.

*Lily of the Valley*.—Ernest Riemschneider, 46, Hambrug Street, Altona-Hamburg.

*Flower Roots*.—Dicksons, Waterloo Place, Edinburgh.

*Bulbs*.—Barr and Sons, 12, King Street, Covent Garden; Dobbie and Co., Royal Horists, Rothesay; A. F. Upstone, 35, Church Street, Rotherham; R. Saddy, 243, Walworth Road, London; Toogood and Sons, Southampton.

*Daffodils*.—Barr and Sons, 12, King Street, Covent Garden.

*Carnations, Pinks, Pansies, &c.*—Clibrans, Oldfield Nurseries, Altrincham.

*Bulbs, Carnations, Roses, &c.*—R. H. Bath, Limited, Floral Farms, Wisbech.

*Roses and Fruit Trees*.—A. F. Upstone, 35, Church Street, Rotherham.

*Bulbs and Fruits*.—L. Spath, Baumschulenweg-Berlin.

*General*.—Pinehurst Nursery Company, Pinehurst, U.S.A.

*Field Crop Seeds*.—Toogood and Sons, Southampton.



# THE GARDEN

No. 1608.—VOL. LXII.]

[SEPTEMBER 13, 1902.]

## COTTAGE GARDEN SHOWS.

**T**IME was when cottage garden shows were set on foot mainly through the agency and energy of the country clergy. It was often uphill work, and we cannot be too grateful to the pioneers who put their willing shoulders to the wheel for the sake of their fellow-men. But with the lapse of time, as in all such movements, there has come a day when enthusiasm flags, and signs are not lacking that cottage garden shows of the old sort are somewhat on the wane. Now and again we hear of one that flourishes apace from some local cause, but as a rule we are told that they have been tried and found wanting, and their best promoters of past years are getting weary and a little out of heart over unrequited labours. We would fain galvanise them into new life, more especially because we are convinced that, so far from their usefulness being diminished, it is likely to be augmented in the future that lies before us, and it strongly occurs to mind that the electric touch which is needed will be found in corporate management and control.

By chance, on the recent August Bank Holiday, we were in a pretty old-world town of one of our fairest English counties, and were present at a country flower show and fête of the kind we would indicate. The ancient borough in question is blessed with a prosperous workman's club. Finding that a popular race meeting held every year in the vicinity on the summer Bank Holiday drew large numbers of people away from the town, whilst it emptied the pockets of not a few to the detriment of wives and children left at home, some of the most astute and leading members put their heads together and suggested that a working men's flower show on that day, controlled entirely by themselves, would afford at once a counter attraction and a pleasant recreation at their own doors in which their families could share. The idea was welcomed, and for some years now has been successfully carried out. No one who was an eye-witness of the fête on August 4 could doubt the beneficial influence of this effort on all concerned. The large tent was crammed to overflowing with a continuous stream of eager and interested onlookers. Various sports and amusements were provided.

Surely a flower show such as this cannot be too highly commended, and it is suggestive. The benefit to the village, or, better still, the

group of villages, which is the centre of some such co-operative effort on the part of the people themselves, is incalculable. There is the hobby to work for all the year round; there is the incentive of emulation which human nature needs to rouse it out of its normal inertia; there is the pleasant intercourse over kindred interests to fill many an otherwise idle and ill-spent Sunday afternoon with innocent occupation; there is wholesome food and rich reward of flower beauty at the command of instructed head and diligent hands in every rood of garden ground around each cottage door.

All who have beautiful homes of their own may help on the good cause of bringing cheer into other lives by wise and kindly intercourse and help to the neighbour with fewer opportunities.

We have before us the schedule of prizes of the cottage garden show held at Warley Place on Thursday in last week. The president is Miss Willmott, who has many helpers in this good work of making gardeners of the villagers. There were no fewer than ninety classes. It is a pleasure to help forward in all possible ways such wholesome recreation.

## BEST ROSES OF THE SEASON.

### THE MOST BEAUTIFUL VARIETIES FOR AUTUMN PLANTING.

In response to our request for lists of the Roses that our readers have found most satisfactory we have received the following interesting communications:—

#### HYBRID PERPETUALS.

A. K. Williams, although not a large Rose, is beautiful when perfect.

Clio of 1894 is good as a white, but for its habit of massing its buds and making dis-budding almost impossible.

Captain Hayward, a splendid flower, cut in bud before expanding; this was very well shown this year at the Temple show.

Helen Keller, a splendid plant, flowering freely, colour good; it is often apt to come irregular in form, and this cold year has produced many ill-shaped flowers.

Mme. E. Luiset, an old and valuable Rose, flowers freely, fairly good colour.

Magna Charta, a free-flowering Rose and a useful exhibition bloom for a dozen box.

Marchioness of Londonderry is splendid but for its nasty dull white colour, which is not pleasant; best on three year old Briar budding, and treated by annually cutting away all the former year's growth, only leaving maiden wood.

Mavourneen, one of Messrs. Dickson's white

Roses, of solid petal, and flowering freely, but rarely seen at an exhibition.

Margaret Dickson splendid, and most useful both for bedding and for show, flowers freely, and, but for autumn mildew, does well anywhere.

Mrs. John Laing good, but must have careful attention, and, although flowering freely, requires an early and warm spring to develop well.

Mrs. Sharman Crawford a lovely Rose; be careful to disbud freely.

Ulrich Brunner, one of the very best and freest Roses sent out, grand on the Briar and no trouble; will flower well in light soil.

Ulster, a new Rose of Messrs. Dickson's hybridisation, but not a free one, and the buds often too long in opening.

Lawrence Allen, good colour and substantial, but rather too flat in form.

#### THE HYBRID TEAS.

Bessie Brown. — This stands well to the front with its handsome white blooms; although apt to droop and open badly it does well if carefully treated.

Baldwin, a Rose I am testing and hope next year to succeed with.

Caroline Testout, well known, and, with Cheshunt Hybrid, very free and good.

Charlotte Gillemot, again a white and solid Rose, but of poor growth, splendid when cut in a half expanded state.

Clara Watson, glorious, especially when seen alongside a bloom of Caroline Testout.

Countess of Caledon, bright colour and flowers freely, useful for show purposes.

Ferdinand Batel and Ferdinand Jamain are both very good, and will be popular as they bloom freely. The former Rose is greatly in demand in America, and called there American Beauty.

Grace Darling, a pretty Rose but for its bad habit of growth.

Helena Cambier, good and free but opens badly.

Kaiserin Augusta Victoria, well known and admired; do not prune this Rose too much as its habit is to grow tall before throwing its buds.

Killarney. — This Rose does not do well with me, but I hear from friends who grow it that it is one of the finest of this class.

La France, a Rose I am trying on its own roots, and learn that it does splendidly in this way.

Mme. C. Ramey, very elegant, and similar in many respects to Ferdinand Batel.

Marjorie, very free indeed, and some blooms of perfect form and substance.

Marquise Litta, a splendid solid Rose, and of good colour and form, not a very free grower.

Mrs. W. J. Grant, a glorious Rose, most free, and when well treated throws fine strong petalled blooms.

Shandon, one of Messrs. Dickson's latest, good and free.



White Lady, very useful and capital for exhibition.

Viscountess Folkestone, a splendid and prolific Rose.

Irish Glory and Irish Beauty, singles, gems both for colour and beauty of foliage, free and strong.

CHARLES W. CROSBY.

Broome Hurst, Dorking.

MRS. W. J. GRANT, earliest to start with show blooms, and has bloomed uninterruptedly until now (September 8), and still shows quantities of buds; the early blooms on the climbing variety are magnificent. Mme. Abel Chatenay, excellent in every respect as a garden Rose, both as to colour, scent, lasting qualities, and freedom of bloom; La France, White Lady (very fine in early summer), Viscountess Folkestone, Maman Cochet, Caroline Testout, Mrs. Sharman Crawford, Hon. Edith Gifford, Killarney, Grace Darling, Marie Van Houtte, Mrs. Edward Mawley, Grüss an Teplitz, Prince Camille de Rohan, Abel Carrière, Louis Van Houtte, Gloire Lyonnaise (bad autumnal), Margaret Dickson (bad autumnal), Captain Hayward, Innocente Pirola, L'Idéal, Belle Lyonnaise, Gloire de Dijon, Mrs. Paul, Augustine Guinoisseau, Camoens, Charles Lefebvre, Mme. Lambard, Suzanne Marie Rodocanachi, and Captain Christy.

HERBERT NASH.

Winash, Brislington, near Bristol.

## KEW NOTES.\*

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

*Asparagus umbellatus*, *Begonia coccinea*, *B. kewensis*, *Bougainvillea glabra* var. *sanderiana*, *Cianthus Dampieri*, *Cyphomandra fragrans*, *Dianthus arboreus*, *Helmholtzia glaberrima*, *Lilium Batemannae*, *L. Henryi*, *L. sulphureum*, *Lonicera etrusca*, *Mussaia Wollastonii*, *Solanum pensile*, and *Tacsonia insignis*.

#### Palm House.

*Faradaya splendida*, *Gomphia Theophrasta*, *Hymenocallis speciosa*, and *Ixora javanica* and *I. spectabilis*.

#### Water Lily House.

*Hedychium* and *Nymphaeas* in variety.

#### T Range.

*Acalypha hispida*, *Anthurium andreanum* var., *Begonias* (shrubby and tuberous), *Calliopsis aurantiaca*, *Chirita sinensis*, *Exacum affine*, *Heliconia psittacorum*, *Hemantus Lindenii*, *Kleinia Galpini*, *Klugia notoniana*, *Moergravia umbellata*, *Pentas carnea*, *Thunbergia grandiflora*, and *Victoria Regia*.

#### Orchid Houses.

*Angraecum eichlerianum*, *A. scottianum*, *Anguloa Ruckeri*, *Catasetum Naso*, *Cattleya bicolor*, *C. Eros*, *C. granulosa* var., *C. schofieldiana*, *C. Grossi*, *Cynorchis purpurascens*, *Cypripedium Ashburtonae*, *C. A. var. superbum*, *Epidermum ciliare*, *E. equitans*, *E. prismatocarpum*, *Eulophia pulchra*, *E. Woodfordii*, *Laelia elegans*, *L. Loddigesii* var., *L. Harrisoniae*, *Miltonia candida*, *M. castanea*, *M. Clowesii*, *M. massaiana*, *M. Regnelli*, *Polystachya laxiflora*, *P. leonensis*, *Rodriguezia secunda*, *Rhynchostylis retusa*, and *Stenoglottis longifolia*.

#### Greenhouse.

*Calceolaria Burbidgei*, *Hidalgoa Wercklei*, *Lantana salvifolia*, and *Nicotiana alata*.

#### Rock Garden.

*Allium carinatum*, *Chrysanthemum Zawadskii*, *Coreopsis rosea*, *Dianthus nœvanus*, *Epilobium Dodonæi*, *Gentiana asclepiadea*, *G. a. var. alba*, *Kirengeshoma palmata*, *Parnassia caroliniana*, *Polygonum affine*, *Satureia montana*, *Senecio pulcher*, *Silene Schafta*, and *Statice subpuberula*.

\* This will be a feature every week.

### Herbaceous Borders.

*Argemone grandiflora*, *Cimicifuga cordifolia*, *Colchicum autumnale*, *C. byzantinum*, *C. laetum*, *Glaucium luteum* var. *tricolor*, *Hunnemannia fumariifolia*, *Impatiens Roylei*, *Silene Fortunei*, and *Silphium* (various).

### Shrubs.

*Ceanothus* in variety, *Clematis aromatica*, *C. campaniflora*, *C. connata*, *C. crispa*, *C. Flammula*, *C. Hendersoni*, *C. intermedia*, *C. Jackmani* vars., *C. orientalis*, *C. Viticella*, *Hypericum aureum*, *H. densiflorum*, *H. hircinum*, *H. moserianum*, *H. patulum*, *H. prolificum*, *Microglossa albenscens*, *Romneya Coulteri*, *Rubus ulmifolius*, and *Roses*.

## EDITOR'S TABLE.

### LILIUM LONGIFLORUM.

Mrs. A. Bayldon, Oaklands, Dawlish, Devon, sends superb spikes of *Lilium longiflorum*, showing how well this Lily succeeds in Devonshire. The stems were tall, leafy, and carried several flowers each.

### SEEDLING CARNATIONS.

Mr. W. A. Watts, Bronwylla, St. Asaph, who recently sent us beautiful flowers of the pure white George Macquay, sends a box of seedlings of rare promise. Mr. Watts writes: "I send a few of my last year's and this year's seedling Carnations, which I think are pretty good considering they have been grown entirely in the open without any protection." The seedlings sent show that Mr. Watts is working in the right direction. One variety, a scarlet on deep apricot, is particularly fine, and all the flowers were of good colour, with broad, stont petals held well within the calyx, not tumbling out or needing a little indiarubber band to hold them in place. The flowers are also sweetly scented. As is mentioned in the note, the plants have not been coddled in any way.

### A BEAUTIFUL CLIMBING TEA ROSE RARELY SEEN.

We have received from Mr. George Prince, of Oxford, flowers of a new Tea Rose named E. Veyrat Hermanos. Mr. Prince writes: "It is of a fine climbing growth, vigorous, and especially good in autumn; but we have shown this Rose equally good at the early shows of the National Rose Society." The flowers are superb in every way; the stem is strong, thick, and brownish crimson, the petals broad, yellow, shaded with buff, a warm salmon tint suffuses the centre, and the scent is delicious. There is so much substance and strength in the flowers that we think exhibitors of Tea Roses will hail it with delight. It is exceptionally beautiful in colour, and its powerful and true Tea Rose scent adds to its importance. A good garden Rose.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

September 16.—Dahlia Show, Royal Aquarium (three days).

September 18.—Great Fruit Show, Crystal Palace (three days).

September 23.—Royal Horticultural Society, meeting of committees, Drill Hall, 12; committee meeting of National Dahlia Society.

**Bulb Number.**—We shall devote several pages in our next number to bulbs, as this is the season for planting. A few of the subjects considered will be Naturalising Bulbs in Meadow-lands, Tulips, the Irish Anemones, Carpeting Plants for Bulbs (a hint for making good effects in spring), Some Rare Lilies, *Crocus speciosus*, New Daffodils, &c., but the usual features will be disturbed as little as possible.

**The finest Sweet Peas.**—On another page is given the report of the Sweet Pea Society with regard to the best varieties of the present year. Those interested in Sweet Peas and wish to know the finest varieties to select for

sowing in November or next spring should keep this list.

**September Roses.**—Given a few sunny days we are promised a grand display of Roses, and those who wish to make their gardens gay at this season would do well to make selections from those at their best now. I do not remember a more promising lot of buds on the plants. The La France race is—as always—well to the front, and Caroline Testout, Mrs. W. J. Grant, Grüss an Teplitz, and others of the Hybrid Teas; and also Corallina, Enchantress, among the Teas, are splendid. Then, too, we have the lovely China Teas, such as Mme. E. Resal, Mme. L. Messimy, and a whole host of others that will give brilliancy and colour to our gardens right into October.—P.

**Veronica longiflora subsessilis.**—Having taken a good deal of notice of the hardy herbaceous Veronicas for twenty years I have never been able to master the history of this. Concerning its introduction to English gardens I know that it was first introduced by Henderson and was called after his name. A few years afterwards it was again introduced as a novelty by Mr. Ware, of Hale Farm Nurseries, Tottenham, who said that it came to him from Japan. I was told by an amateur who had been in Japan that he believed he had seen it there, but whether as a wild plant or in a garden he could not tell me, and I have never taken an opportunity of looking for this variety in the Kew herbarium, where something might be learnt about it. It is undoubtedly the finest of the garden hardy Veronicas, but as for gardeners not taking the trouble to raise it from seed I should only be too thankful to anyone who would send me or tell me of a fertile seed of it. I have raised from seed I may literally say a hundred forms of *V. spicata* and *V. longifolia* and their intermediates, but I have never seen one in which I could suspect this fine form of being a father. It seems to me absolutely barren, both in seed bearing and in pollen.—C. WOLLEY DOD, *Edge Hall, Malpas*.

**Early-flowering Chrysanthemum show at Tamworth.**—There is to be a gathering of those interested in the cultivation of the early-flowering Chrysanthemum at Bolehall House Gardens, Tamworth, on Saturday, the 27th inst., when some 3,000 plants, in great variety, will be open for inspection. Both the Japanese and Pompon types will be freely represented, close upon 200 varieties, and these representing the best now in commerce, will enable the fortunate visitors to make comparison between the older and newer sorts. To add to the interest of the meeting, Mr. William Sydenham offers four silver cups for competition, one in each of the following classes: For twelve bunches early-flowering decorative Chrysanthemums, distinct; twelve bunches early-flowering Pompon Chrysanthemums, distinct; six bunches early-flowering decorative Chrysanthemums, distinct, catalogued in 1900 or since; and six bunches (three yellow and three white) early-flowering decorative Chrysanthemums, distinct. The blossoms must have been grown by the exhibitor in the open and not disbudbed. The exhibits are to be ready for judging at noon, and there will be an exhibitors' lunch at one o'clock. Mr. William Sydenham, who conceived the idea of a Chrysanthemum feast, gives a hearty welcome to growers and others, but application for tickets should be made not later than the 25th inst. The early-flowering Chrysanthemums have advanced in popular favour during recent years, and an event such as the one under notice should give a stimulus to their culture. As a plant for brightening the outdoor garden in the autumn months the early Chrysanthemum is unsurpassed, and with the addition of newer kinds these plants are enhanced in value.—D. B. C.

**Verbascum Chaixi.**—One plant of this has given distinction to a cottage garden in Reigate. No one could pass by without noticing it. The very small garden is filled with beautifully grown *Phlox decussata* in pots and two patches of *Coreopsis tinctoria*, over which the graceful yellow flowers with purple filaments of the *Verbascum* hover like butterflies.—WINIFRED SPURLING.



**Galtonia candicans.**—This fine Cape bulb is grown more largely and with finer effect at Highclere Castle than I have seen it elsewhere. On a long narrow border fronting a wall, on a north aspect, there are dozens of huge clumps interspersed with clumps of Iris. Just now the Galtonias are in fine bloom, and far more attractive in a mass than when grown thinly and in a warm, dry position. Evidently the bulbs like a cool site and moisture.—A. D.

**Rose Mme. Antoine Mari.**—We have in this pretty novelty a Rose likely to prove almost as useful as G. Nabonnand. The colours form a most pleasing combination—French white in the centre, heavily suffused, with bright rose on outer petals. The buds are very shapely, opening to a loose large petalled flower, after the style of G. Nabonnand, only not quite so large. The foliage is very beautiful, contrasting well with the unique coloured blossoms. M. Mari, the superintendent of the Public Gardens, Nice, is, I believe, the raiser.—P.

**Fibrous Begonias.**—With so many failures in flowering bedding plants this season, arising from so much rain and so little sunshine, it is particularly pleasant to find fibrous-rooted Begonias so very bright and effective. I saw recently masses of Fairy Queen, a lovely pink variety; Princess Beatrice, tinted white; and Crimson Gem at Highclere Castle literally full of bloom. When will Messrs. Sutton and Sons succeed in giving to gardeners a good yellow-flowered variety? Such a plant would be indeed a welcome bedder.—A. D.

**Strawberry The Laxton.**—In the summer of 1901 Mr. Pope, of Highclere Castle Gardens, went with others to Bedford to see the Laxton Strawberry growing and fruiting in quantity, and was so much impressed with its great excellence that he ordered 100 plants. That order was executed a week or two since, and when at Highclere recently I saw the plants, good strong rooted layers in pots, and also saw them planted out on a south-east border in well-manured soil. There they will more or less fruit next year, as planting at the end of August should give ample time to make strong crowns, which may be trusted also to give an abundance of runners. Hence in paying a big price for such a consignment there is every prospect of securing a good return in a year or two. If this splendid Strawberry generally justifies its present reputation there will be an enormous demand for it.—A. D.

**Spiræa japonica Anthony Waterer.**—This hardy shrub deserves to be better known and more generally cultivated. Where planted in large beds on lawns or as broad margins to choice shrubberies it gives a wealth of colour in late summer and early autumn. The colour of the flower is a warm, deep claret, and it is distinct from any other plant in bloom at this time that I know of. On a recent occasion I saw it planted in a mass in this way on the lawn some distance from the mansion, and the effect was most pleasing. If the soil in which the Spiræa has been planted has previously been deeply trenched and well manured it will give little or no further trouble afterwards, with the exception of an occasional good soaking of water during dry weather in summer.—O. T.

**Onosma echioides at Rothesay.**—This interesting little plant for the rock garden is, and has been for some time past, flowering in great profusion here. It is a charming little plant that should be more grown than it is. It seems to have got a bad reputation, owing no doubt to the fact that it is killed with kindness. It should be planted in the sunniest spot in the rock garden in very sandy soil, where it can have a deep root run, a crevice between two pieces of rock suiting it well. It must, however, have good drainage, as anything approaching stagnation is fatal. The flowers are of a golden-yellow colour, tubular, about  $1\frac{1}{2}$  inches long and  $\frac{1}{2}$  inch across, in a branched cyme about 1 foot high. The leaves have coarse hairs. Cuttings made from the young shoots and put in almost pure sand during the month of August root well. It is a good

plan to place a sheet of glass over it during the autumn and winter to throw off some of the rain, otherwise the leaves being hispid hold the water and are likely to rot. It is perfectly hardy here. Most nurserymen catalogue it under the name of *O. tauricum*. In "Nicholson's Dictionary" it is called *O. stellatum tauricum*, but according to the new "Kew List of Herbaceous Plants" it is *O. echioides*. It was introduced from the Caucasus about 1801, so that it has been with us over a hundred years and is still scarce.—G. M., *Rothesay, N.B.*

**Mixed Sweet Pea.**—I am cutting out of THE GARDEN "B.'s" remarks about Sweet Peas. His experience has been mine also, and I am sending it to one of the first Sweet Pea growers in England. Neither time nor expense were saved to secure the finest selections. In spite, however, of this, more than half the seeds have come up plain white, and of the remaining half there has been a quite undue quantity of dark purple—hard and quite uninteresting in colour. Some of the finest sorts were entirely absent, not indeed a single blossom of them, and hardly any fine crimsons, roses, pinks, and flushed pinks and salmons, or pale blues, or those blues with pearly marks like a lovely shell that one has often seen before and rejoiced in. The result this year, therefore, has been that from the very first the Sweet Pea hedges had the cold dreary colour of autumn on them. I am not in the least alluding to the late heavy rains, but before the rains came. The same decadence has followed many of the green Peas also.—A. CONSTANT READER, *Worthing.*

**Olearia Haastii.**—I question if we have anything in flower at the present time to vie with this handsome evergreen flowering shrub, which is literally now a wreath of snow, so abundantly flowered that the small leaves are scarcely visible, this being more noticeable at seaside resorts, where the plants flourish to perfection. To gain the most satisfactory results it well repays the cultivator's attention in the matter of good compost, which should consist of loam, burnt refuse, and some thoroughly decayed manure. If planted in this at the beginning the plants make a free start, flower luxuriantly, and keep in the best of condition for several years. For small gardens it is eminently suitable, as its growth is moderate and pruning is seldom required.—A. B.

**Eucryphia pinnatifolia.**—Like many other Chilean shrubs, a more humid atmosphere than that experienced in some parts of this country suits it best, hence it succeeds better in the West of England and in Ireland than in many other districts. Still, with care it can be successfully grown elsewhere, and when in full flower, such as in the specimen shown by Messrs. Veitch at the Drill Hall on August 19, it forms a delightful shrub, not the least attractive feature being the fact that its season of blooming is after the bulk of flowering shrubs are past. Its usual habit is to form a rather upright freely-branched specimen, which in its native country is said to reach a height of 10 feet to 15 feet, but it has not at present attained these dimensions here, although where happily situated it promises to do so. The dark green pinnate leaves are composed of fine ovate-toothed leaflets about 1 inch long. The pure white flowers are, except in colour, suggestive of a Hypericum, having the same cluster of prominent stamens. They are from  $2\frac{1}{2}$  inches to 3 inches in diameter, and are produced from the axils of the upper leaves. To succeed with this Eucryphia it needs a fairly moist yet well-drained soil, with a moderate proportion of peat and sand, a spot sheltered from cold winds, and where the full rays of the sun are somewhat broken. It may be propagated by cuttings of the half-ripened shoots put in sandy soil and kept close, but as it does not strike very readily it is often layered.—H. P.

**Early-flowering Chrysanthemums.**—Notwithstanding the late season the early-flowering Chrysanthemums are doing remarkably well. Their growth this season has been extremely free, and on this account it is quite safe to predict a gorgeous display soon. Already there are several good Japanese sorts in blossom, and

their effect in the border is very striking. Plants of Henri Yoon, not more than 18 inches high, are developing quite handsome blooms of a rosy buff colour, and each flower may be cut with a long foot-stalk. Mrs. R. Mollinson is another member of the same family of plants, but with me is rather more vigorous in its growth, and consequently is slightly taller. This variety is a profuse bloomer, and at this early period the usual bronzy yellow colouring of the flowers is tinted quite freely with crimson. Mychett Pink is a distinct acquisition. The plants are not more than 2 feet high, and each one has a number of pale silvery pink flowers. The plants of Mme. Marie Masse and its sports are already making a display, and one may confidently look forward to it extending over two months at least. The original of the type Mme. Marie Masse is developing its flowers quite freely, and their colour is brighter than usual. This is usually described as lilac-mauve, but this season the shade of colour is much richer. Crimson Marie Masse is really a deep rich bronzy crimson sort, and blooms profusely. Rabbie Burns is another excellent sport, the colour of the flowers of this variety being a charming salmon-cerise. Undoubtedly the best acquisition among the early sorts for years is the latest sport from Mme. Marie Masse, and named Horace Martin. This plant was certificated last autumn and distributed in the spring of the present year. It is a sturdy variety; the colour is a clear rich yellow. The yellow sports from Mme. C. Desgranges have for many years supplied the needs of those requiring Chrysanthemums of a yellow colour quite early in the season, but these are much poorer than Horace Martin. The plants should be only very partially disbudded, as each bloom is developed on a long foot-stalk, an important consideration with cut flowers.—D. B. CRANE.

**Outdoor Carnations.**—When looking through the stock of border Carnations the other day to select varieties and quantities for this season's layering, I came across four or five sorts that remain from the original stock acquired nearly twenty years ago, and have held their own ever since on the open border in various parts of the garden, subject, of course, to the annual layering and October planting. The retention of some of these is perhaps almost a matter of sentiment, although a couple of Mrs. Reynolds Hole and Raby are useful when a lot of cut flowers are required, and one at least, Countess of Paris, is nearly as good as anything that has been raised of late years from whatever standpoint the flower is considered. The question as to the bardiness of border Carnations has often been discussed, but I do not think any hard and fast rule can be laid down. In two places, not many miles apart, some hundreds of plants may be put out in October, with the result that in one case the loss may be as low as 3 per cent., and in the other as high as 50 per cent. Soil, situation, shelter, together with immunity against exceptionally severe frost and continued fog, have all much to do with successful "all the year round" outdoor culture, together with a judicious selection of varieties, the latter about the most important point to be considered. Detrimental natural conditions may be altered as in the case of soil and situation, or mitigated as by the use of slight protection against frost and fog, but these are secondary considerations when compared to a careful selection of sorts—I am writing of absolute open air treatment; potting up layers, keeping them under glass through the winter, and planting out in late spring are other matters altogether. It is not so much a question of bardiness as the difference between a free vigorous habit as opposed to weak spindly growth, the former characteristics being so essential towards the rapid development of strong healthy plants for October planting. To put out a small weakly layer, to which only a tiny root is attached, and expect it to come safely through the winter is simply to court disaster. Special points we always consider when trying new varieties for our outdoor border are a free vigorous habit that throws strong healthy grass, flowers that do not split, fair average size of bloom, and colour clear and well defined. In naming a few varieties grown I do not claim that they are superior to others,



only that they meet all requirements above noted and have come through several winters at small loss. They are The Countess and Mrs. Eric Hambro, white; Countess of Paris, Cassandra, and Ibis, bluish; Miss Audrey Campbell, yellow; The Pasha and Carolus Duran, buff; Sadek, rose; Braw Lass, bright rose; Boadicea, rosy scarlet; Hayes' Scarlet and Black Bess, the most vigorous of the Mephisto shade. I have not grown many fancy varieties, as there is generally a tendency to split. Lady Ardilaun, Cardinal Wolsey, Hidalgo, and Queen Bess are all fine flowers. I said above that slight winter protection was occasionally necessary, but it has only been so with us twice in eighteen years—once during a very cold February and once when a thick yellow fog prevailed both day and night for several days. We have for several years dispensed with the traditional large amount of leaf soil in the layering compost, experience showing that in hot dry summers it was of far too drying a nature. I like a compost of three parts old Cucumber and Melon soil and one of horse manure well broken up. Once get this thoroughly soaked the moisture is well retained, and it is pleasant when lifting the layers to notice the goodly array of roots clinging so tenaciously to the bits of manure; also for the reason above stated—i.e., the retention of moisture. It is not advisable to heap the layering compost too high round the old stools if the ground has been previously loosened with a fork; 2 inches of fresh soil is all that will be necessary. For the October planting a south-west border is a good site, and this should have a dressing of thoroughly decomposed manure and be deeply dug. Spent Mushroom or peat moss manure is a good mulching material.—E. BURRELL, *Claremont*.

## THE FLOWER GARDEN.

### SWEET VIOLETS—NEW AND OLD.

**V**IOLETS are found in most parts of our island, and universally esteemed for their sweetness. They are usually seen in woods and on moist banks near streams, and this fact should be borne in mind in determining the position in the field or garden in which it is proposed to grow them. More attention has been given to the cultivation of the Violet of late years than was formerly the case, for in addition to the value placed on a good supply in a private garden, the commercial importance of the plant has increased immensely both at home and on the continent. Speaking of the scent of the Violet reminds me that the English Violet, and also the English Rose, give infinitely sweeter perfume than the foreign ones, yet for extracts of Roses and Violets we must perforce go abroad when we have the raw material in abundance at our doors!

One absolute essential to the growth of the Violet is pure air. In the absence of this, it is useless to attempt its cultivation. Those living in or near great cities and towns know this only too well, for however much they would like to grow their own Violets, and how hard they may try, the modest little flower consistently refuses to grow except in the pure air of the country. I have not come across a single instance of successful Violet culture in the immediate suburbs of the great city.

#### DOUBLE VIOLETS.

The Violet may be divided into two sections, the single and the double. This is rendered necessary as far as their culture is concerned, as double varieties are less hardy and require more care and skill in their cultivation than the single ones. We will take the double varieties first, of which the following are the best:—

*Marie Louise*.—A well-known and grand old favourite.

*Lady Hume Campbell*.—One of the best doubles. It is a little later than *Marie Louise*, and is there-

fore useful for extending the Violet season. This is an indispensable variety.

*Mrs. J. J. Astor*.—This is a distinct and beautiful variety, exceedingly sweet. Its colour is a mixture of violet, heliotrope, and pink.

*Bertha Barron*.—Dark purple, one of the best.

*De Parme*.—Pale blue, one of the sweetest.

*Neapolitan*.—An old and general favourite, and very sweet, but its constitution is delicate, and it is difficult to grow it well.

*Blue and White*.—This is a delicately coloured variety, and strongly scented.

*Comte de Brazza*.—Pure white, and the only white variety worth growing.

In giving instructions as to one of the best methods of growing the double Violet the simpler way will be, I think, to start at that season of the year when the Violet has ceased blooming, and when our attention will be naturally turned to propagation and to prepare plants for the following autumn, winter, and spring displays. This will be towards the middle of April. The first thing to do will be to take the old plants up, shake all the soil away, and pull them into pieces. One plant will make half a dozen. These small pieces must have a few roots and healthy leaves attached. The next process is to pot these little pieces into 3-inch pots in soil composed of loam and leaf-mould in equal proportions (the pots drained, of course). I must here mention a matter which exercises much influence in the successful culture of the Violet. I refer to the

#### INSECT ENEMIES

from which it is liable to attack. The only formidable one we have to guard against is red spider. I mention it at this juncture because the old plants after the exhaustion of flowering (at the time of propagation) are nearly always more or less suffering from an attack of this destructive little pest, and it would never do to translate, knowingly at any rate, this pest from the parent plant to the young one at this initial stage. What we have to do then is to dip those small pieces in the following emulsion before they are potted, taking care that every part of the leaves and stems is well immersed in the liquid. After this they should be put on one side to dry in a shady place, and in the course of three or four hours carefully examined—under the microscope by those whose eyes are not so good as they used to be—and if any are found alive they must be immersed again, when it will be found that the second application will have had the effect of freeing the young plants of red spider. The emulsion should consist of one wine-glassful of paraffin to a gallon of water, adding a quarter of a pound of soft soap and the same of flowers of sulphur. These ingredients should be mixed to a paste in a mortar first, and the gallon of water added afterwards. As soon as the plants are dry they should be potted into small pots as mentioned before, and placed close together in a cold frame. The young plants must be syringed four or five times a day and shaded from strong sunshine. Two or three days after potting they should be well watered. Under this moist and shady treatment the young plants will soon fill the small pots with abundance of new roots, and many new leaves will be developed. When this is the case shade must be reduced and abundance of air admitted. Towards the middle or end of May the plants will be well rooted and large enough to plant in their summer quarters, and to the preparation of those quarters attention must be now directed.

#### ASPECT.

The plants will succeed fairly well if planted in the open garden or field, where they may be exposed to the full light of the sun all day, but they will succeed much better if they are in a border which is shaded during the warmest part of the day. Such a position would be secured by planting in a border under a wall or fence facing north-east. The

#### PREPARATION OF THE BORDER.

The soil should be moderately light, and before it is dug over a liberal application of leaf-mould should be added, as well as a good sprinkling of quicklime, say half a gallon to a square yard,

and if the land is in any way inclined to be stiff, road scrapings or river sand should be added. The ground should be dug deeply in the winter, and left as rough on the surface as possible, so as to expose it to the action of the weather. When planting time has come round all we shall have to do will be to fork it over, reducing the surface to a proper level ready for planting. The distance apart at which the double Violet should be planted is 16 inches between plant and plant in the row and the same distance between the rows. Before the plants are turned out of the pots ready for planting they should again be carefully examined, in order to be sure that red spider is not present, and if any are suspected let all the plants be dipped in the emulsion as instructed before at the time of propagation. In planting, select the strongest plants to go by themselves, and the weaker ones to plant by themselves at less distance apart (15 inches will suit them). Let them be planted deep enough to cover the whole surface of the ball about half an inch, and let the soil be pressed firmly round them.

#### SUMMER MANAGEMENT.

This will consist in timely attention to watering, syringing, hoeing, mulching, and taking off the runners. They should receive a good soaking as soon as they are planted. This will suffice for a week or two; but the young plants should receive a spray from the syringe at least three times a day when the weather is dry and warm, namely, in the morning about eight, in the afternoon about three, and in the evening between six and seven. The hoe should be plied as often as convenient, not only for the purpose of preventing the growth of weeds, but also for the sweetening of the soil, and thus promoting the best possible growth in the shortest time. Close attention must be given to taking off the runners, as if allowed to grow they exhaust the plants and prevent that full development of the crown on which our hope of a rich harvest of bloom entirely depends. In the case of varieties it is wished to increase the stock of, the runners may be preserved and planted close together in a shady position, where they will soon root and form useful plants for stock another year at planting out time.

As soon as the plants are fairly well established it is an excellent plan to spread a layer of short manure round their roots; this forms a mulch to prevent the plants drying up too quickly, and also stimulates the roots by the ammonia washed down from the manure by the action of rain. If possible the syringe should be applied every evening throughout the summer; this not only helps and encourages growth, but keeps red spider at bay, if this should unfortunately attack the plants during their season of growth in summer. The best remedy to apply will be to syringe the plants thoroughly with the emulsion previously recommended, reducing its strength by one-half. Whilst the plants are growing freely they should be assisted with a moderate application of weak liquid manure from the stable-yard every ten days or a fortnight. If all the details of culture as very imperfectly given in the foregoing have been well attended to, by the end of August the grower ought to have fine sturdy plants 10 inches across and with strong and well developed crowns. The time has now arrived when we must decide as to the best treatment of the plants during winter.

OWEN THOMAS.

(To be continued.)

## AUTUMN FLOWERS FOR THE WILD GARDEN.

WHERE the road dips at the beginning of the copse at Rose Brake the ground is moister, or rather less dry, than anywhere else in the grove. This copse is about 200 yards west of the house, and here, partially shaded by Ash and Oak trees, we have made a wild garden, among the young sapling Tulip trees and Hickories, in which to naturalise some of our more showy native plants that are too coarse for dainty garden beds. Our native flora is exceedingly rich in bright-flowered members of the great family of the Compositae.



Many of these plants we have collected in our excursions from the woods, meadows, and mountains of the neighbourhood. Some of them have been sent to us by friends at a distance, and some we obtain from plant dealers. In this cove we have established some of the Asters, which spread too rapidly for introduction into the choicer Aster garden, but which here are kept in check by their equally strong-rooting neighbours, such as some of the marsh Golden Rods and Sunflowers.

Our researches in the woods and waste places of the neighbourhood for plants to naturalise in the cove have resulted in some interesting discoveries. One early-flowering and very handsome Golden Rod now blooming here is *Solidago neglecta*, which comes into flower early in August, and will, I think, from present appearances, prove to be one of the few desirable Golden Rods that do not encroach too much upon their neighbours. It is a fine, showy species, 3 feet in height, with bright, eight-rayed florets in a thyrseoid panicle. The early-flowering *Solidago arguta*, which is a slender

tall branched stems, white flowers, and a hairy rough appearance. Then there is the rather rank-looking *E. altissimum*, found in dry, open woodlands, where it reaches the height of 8 feet. This also has white flowers. *Eupatorium aromaticum* is a much smaller and prettier species, rarely exceeding 2 feet in height, with pretty white flowers and a pleasant healthy smell. But the best of the *Eupatoriums* is the one that used to be called *Conoclinium coelestinum*, now changed to *Eupatorium coelestinum*. It is of lower growth than most of the species, and has fine lavender-blue flowers. It is a useful plant for forming the undergrowth between shrubs or larger plants in such a garden. It spreads by underground stolons, and needs a good deal of moisture to perfect its growth. Beds of this plant in marshy places are beautiful in late summer and early autumn.

Among the Snakeroots, now called *Lacinarias*, but always known heretofore as *Liatris*, we find several good species to naturalise. One of these is *Lacinaria* (or *Liatris*, if you prefer) *squarrosa*,

which is a native of some of our Southern States. It is of very low growth for a *Liatris*, about 1½ feet in height, and has bright mauve-coloured flowers in narrow spikes that remain a long time in bloom. Nearly all the *Lacinarias* are showy plants, but I have found only three species in this neighbourhood. These are *L. elegans*, *L. scariosa*, and *L. apicata*.

*Liatris odoratissima*, a very interesting species with corymbose-paniculate heads, unlike the other kinds, but more like those of the *Eupatorium*, has very fragrant leaves, from which it takes its common name of Vanilla Leaf. It is said to occur sometimes in the Pine barrens of Virginia, but I have never found it. I have obtained it from a dealer in native plants. The fragrant leaves are used in curing an excellent kind of smoking tobacco. It is a very desirable plant for the wild garden, both for its pretty flowers and its delightful perfume.

The botanists have now put this plant in a separate genus and created for it the name

*Trilisa odoratissima*. There is one other species, also a native of Pine barrens, but I have never met with it. It is called *Trilisa paniculata*. The genus *Chrysopsis* contains some pretty species, with flowers like yellow Daisies. One of the best of these is *Chrysopsis Mariana*, the Maryland Golden Star. This has long been known to English gardeners, where it was first introduced as far back as 1742 by Dr. Dale, a Marylander, from which State it takes its specific name. It is a common plant on dry and sandy barrens. It has a peculiar cobwebby appearance when the plant is young, owing to the fact that the stems are clothed with very fine silky hairs, which fall off as it grows older.

Another species of this interesting genus is the Cottony Golden Aster (*Chrysopsis pilosa*), a native of the South. It has stout stems covered with white cotton-like pubescence, and bright flowers a little larger than those of the former species, that is to say, about an inch across. It is little known to gardeners, and not often met in a wild state. There are several other showy species of

*Chrysopsis* in the West, but I do not know whether they have been introduced into gardens.

One pretty species of *Boltonia* grows in this neighbourhood, and one only. It is *Boltonia asteroides*, which forms a stout bush 6 feet or 8 feet high, and is a fine sight in August, when it is covered with its Aster-like, many petalled flowers, which in the different varieties are white, mauve, or lavender-blue. *Boltonia latiscuama*, a native of the West, is also naturalised here, and is a much smaller plant, with a slender weak stem, requiring staking, but very pretty in the Aster garden for its abundant blue flowers.

These are only a few of the charming wild flowers with which this region abounds, but I will describe the Sunflowers, Rudbeckias, and other Compositæ at some future day.

DANSKE DANDRIDGE.

Rose Brake, Shepherdstown, Jefferson County, W. Va.

[Although Mrs. Dandridge writes from America, the flowers mentioned are quite happy in English gardens. The English autumn garden owes much to the prairies and woodlands of America.—Ed.]

## NOTES ON HARDY PLANTS

### THE BEST WHITE CARNATION.

THE photograph from which the accompanying illustration was reproduced was kindly sent by Mr. Watts, Bronwylfa, St. Asaph, whose note appeared in THE GARDEN last week, page 158. George Macquay is a beautiful garden variety, and is one of the best we have ever planted in groups, as its flower stems are strong, erect, and bear a wealth of flowers pure as driven snow, full, and without the least indication of splitting, while they have a sweet fragrance. It is not only the best white, but one of the finest of all Carnations for the outdoor garden.

### HABRANTHUS ANDERSONI.

ALTHOUGH not so showy as either of the two former, this is well worth growing. In habit it is very distinct, the leaves being about 9 inches to 12 inches long, narrow, and glaucous green; the peduncle is one flowered, and the perianth almost erect, bright yellow inside, and coppery yellow or bronze on the outside. Almost quite hardy everywhere, succeeding best in a good loamy soil, planted out in clumps in the open, slightly sheltered border, or grown in pots. It increases fast and becomes sometimes quite a weed; it ripens seeds freely, which if left alone will flower the second year, while the bulbs multiply rapidly. It flowers during August and September, often earlier.

### HABRANTHUS PRATENSE FULGENS.

THIS is not only one of the most distinct and showy of this genus, but is also quite hardy. I well remember about twenty years ago a clump in the garden of Mr. Ware (Tottenham) on a slope of a low rockery and planted in heavy loam. It flowered remarkably well, producing such an abundance of most perfect flowers as I have never seen since. This clump had to be lifted, and was later on divided and partly sold, but the remainder never did quite so well again. On another occasion I saw a small clump of about half a dozen bulbs in a garden in the suburbs of London having at the time six to eight flowers open. It certainly seems to be a very peculiar plant, growing well in a certain spot, while if planted again in almost the same soil and position refuses to thrive. It has a short necked, dark skinned bulb, with leaves over a foot long and half an inch broad, linear, deep green, appearing with the flowers during spring. The peduncle is stout, 1 foot to 1½ feet in height, bearing two to four fairly large flowers of a bright scarlet colour. At present this form is very rare in English gardens. A native of Chili, where, according to all



CARNATION GEORGE MACQUAY, THE BEST WHITE VARIETY FOR THE GARDEN.

and graceful Golden Rod, with brilliant light orange heads of flowers, is also in bloom in this place in the company of the tall Aster *Novæ Angliæ*, which is just opening a few of its rich crimson blossoms. *Solidago neglecta* is not often found so far south as West Virginia. According to the books Maryland is its southern limit. Here we discovered it on the West Virginian side of the Potomac which divides the two States.

We have naturalised one or two of our native *Eupatoriums* in the cove garden. The best white *Eupatorium* that grows hereabouts is *E. ageratoides*, which has heads of pure white florets. Several other species are abundant on the river cliffs, and the pink Joe Pye Weed, named, I believe, after an Indian doctor who made extensive use of it, is common in marshy places. It is very showy in masses in such places, mingling with clumps of tall crimson, and purple, and white Marsh Asters, blue Lobelias, and bright yellow Golden Rod and Rudbeckia.

Besides these we have much *Eupatorium perfoliatum*, the commonest species here, with



accounts, it grows in masses on the mountain sides. One feels surprised that no effort is made to import this plant again as there should be little difficulty in getting a good supply.

### LYCORIS SQUAMIGERA.

THIS is one of the few species of *Lycoris* introduced from Japan. If planted in a certain spot, not too exposed, in almost any garden soil and left alone for a year or two, it will flower freely every year. It differs from *L. radiata*, or as it is more often called *Nerine japonica*, which is an inferior and disappointing plant not worth the trouble of planting, as it never or very rarely flowers. Japanese exporters send it, I should say, as ballast over to Europe. *L. squamigera* has a large globose bulb with brown or black tunic. The leaves are produced during the spring, and are about a foot long and three-quarters to 1 inch broad, deep glaucous green. The peduncle is about 18 inches high, rather stout, with an umbel of several pretty flowers: the perianth is rosy lilac or lilac-purple, the segments slightly wavy. During warm weather the flowers are sweetly scented. Clumps of this perfectly hardy bulb are in flower here at the present time. This plant came first under my notice some fifteen years ago, sold and supplied by an American firm under the erroneous name of *Amaryllis Halli*, small bulbs, which only flowered after three years, being sold at exorbitant prices.

Ashford, *Middlesex.*

G. REUTHE.

### CORYDALIS THALICTRIFOLIA AT KEW.

THE floral committee of the Royal Horticultural Society gave an award to this plant in the early part of the present year, and the award is amply justified. Originally it was thought to be of doubtful hardiness, yet excellent if bedded out quite early in the year. To my mind, however, any glass treatment would detract from the full beauty of the plant. Last year a strong plant of this species was for many months a thing of beauty in the rock garden at Kew, flowering indeed from May to the time of frost, in short, well into October. Not only from a point of suspected tenderness, but equally perhaps from its great continuous flowering, was it thought the plant would succumb, and so completely did it disappear that these thoughts appeared to be fully realised. Happily this is not the fact, for the original plant reappeared again in the spring of the present year, and has flowered away again with all its original vigour, freedom, and profuseness. The plant is so distinct a gain to good rock garden subjects that I doubt not the news will be generally welcomed. Less than 1 foot high, the flowering head or tuft rather, *i.e.*, leaves and flowers combined, is more than 18 inches across. The plant seeds freely also, and in this way promises to almost take care of itself. When seeds are sufficiently plentiful these should be sown in walls and ruins, for in such positions the plant will have a special charm.

E. J.

### MERTENSIA PRIMULOIDES.

COMPARED to the better known *M. virginica*, the above species would not be called showy, yet in its smaller and vari-coloured blossoms it is certainly very charming and interesting. The principal colours are a mixture of violet-purple with blue, and the gold of the anthers shines out clearly. Like the other species of the genus, this also is a plant for a shady and cool, if not also a moist, spot. There is a sort of intimation of hand as it were that a peat mixture would be best fitted to its requirements. Indeed, the shade already mentioned and the spongy peaty soil well mingled with sand will go a long way towards making this rather rare species fairly happy. Without the glaucous leaf character of the other species named, the

present one is not unlike a rough-coated type of *Myosotis*, particularly in the larger leaves. There is also not a little of the form and character of the *Myosotis* in the leafage. The individual flowers are about half an inch across, and strong plants bloom profusely. In the colony where *Dentarias*, *Trilliums*, and such are found this interesting plant will prove a welcome addition.

E. J.

### SILENE VIRGINICA (VIRGINIAN FIRE PINK).

THIS striking and beautiful species has been seen several times lately at the Drill Hall, chiefly exhibited, I believe, by Mr. Amos Perry, of Winchmore Hill, who has shown it well. The large mass of material shown, however, on these occasions, the shortness of space, and the invariable shortness of time between the meetings and the report being available, render it next to impossible for plants of exceptional merit to be dealt with in detail. Hence I make no apology for referring to the above in a special note alone. Indeed, it is quite worthy of it from the merit standpoint, for the plant



TEA ROSE SULPHUREA IN VASE.

(From a photograph kindly sent by Messrs. W. Paul and Son, Waltham Cross.)

occupies a position quite unique among hardy perennials at this time. Brilliance of colour and a certain freedom of flowering all belong to this beautiful hardy plant, which during recent years has hardly been seen at any exhibition in any quantity. Odd plants are seen sometimes, but they fail to attract, but a dozen or more well set with brilliant crimson-scarlet flowers is quite another matter, and not only attract but win admiration. The species is of fairly easy culture: indeed, a chief enemy is not cultivation but a certain definite fondness that the slug family possess for it. This is often true of the growth buds near the surface, and in winter the plant should be protected accordingly. Seeing the plant possesses much of the brilliant fire and colour of the scarlet *Lobelia*, it is worthy a place in all collections, whether in the rock garden or in the border of good things. A good gritty loam, one well charged with leafy matter rather than manure, suits the plant quite well. In exceptional instances the species may

attain 1½ feet, but it is not general. Seeds are produced at times, therefore the stock may be easily kept up when once secured.

E. J.

## THE ROSE GARDEN.

### A NEW TEA ROSE.

SULPHUREA.

AS we mentioned in *THE GARDEN* on August 16 last, this Rose is likely to be much heard of in the future. The beautiful sulphur-yellow buds are produced on such erect stems that the effect on the plant is just what we have been looking for in a Rose of its colour. It will make a fine bedding kind, far better than the now little grown *Isabella Sprunt*. The expanded flower, only then semi-double, changes almost to white, yet there is a yellow shade when seen in the mass. Not the least charm of the variety is the foliage, which is nearly as rich in colour as the *Copper Beech*. Messrs. William Paul and Son are to be congratulated in giving us this fine novelty, which must rank as a garden Rose in the same degree as their *Medea* does among the show Teas. Florists, or all who grow Roses in midwinter for cutting, will find *Sulphurea* a useful Rose, the petals being so firm. This enables the buds to remain in the bud stage much longer than many Teas having semi-double flowers.

T.

### PREPARING TO PLANT.

DR. DYER, an eminent agricultural chemist, in his report upon the constitution of certain Rose soils, procured from widely different localities, makes the following remarks:—"I am obliged, after careful study of the chemical results, to come to the conclusion that any common bond that may exist between the soils must be sought less in chemical resemblance or in abundance in any particular chemical ingredient, than in good mechanical and physical condition of the soil and good drainage." And all practical Rose growers admit that with careful preparation of the soil before planting considerable progress is made towards successful Rose culture.

The present moment is a good one to begin the necessary trenching where new plantations are contemplated. Fortunate is the individual who is able to form a new Rose garden by enclosing a portion of pasture land. Here one may have already the grass paths which are so cool and pleasant a feature of any rosary, and all that is required is to mark out the beds and have them trenched 2 feet to 3 feet deep, working in the turf in the operation.

I may say here I have no liking for the fantastic geometrical designs which are considered necessary by some whose business it is to draw out plans. I would rather have fairly narrow beds that admit of all necessary operations being performed without treading on the soil. Such beds would be not more than 5 feet wide and would take three rows of plants. Whatever the form of the beds may be, the one essential thing is to have them thoroughly and deeply trenched, and if at all waterlogged artificially drained.

Suppose the Rose garden is to be in part of a paddock, the only addition needful will be





ASTILBE CHINENSIS VAR. DAVIDII.

(A beautiful new Astilbe, 6 feet high, from China. Exhibited by Messrs. J. Veitch and Sons, Chelsea, at the Royal Horticultural Society, and given a first-class certificate.)

some well-decayed farmyard manure. Nothing can compare with this as a fertiliser if the material be well prepared by frequent turnings during the summer. Where reliance is placed upon artificial manures the results in the end are not satisfactory, as they tend to destroy the needful bacteria in the soil. Many growers find basic slag a very valuable phosphatic manure if applied in autumn to the lower spit of soil at the rate of  $\frac{1}{2}$  lb. to the square yard, but here again, unless it can be procured from a good source, the land would be better without the spurious article. Personally, I have great faith in bones for producing blooms of fine quality, and I think bone-meal is the best form in which to apply it.

The trenching, if done at once, will allow the soil five or six weeks to settle before the plants are fit for removal. It may seem a great task to trench 3 feet deep, but it pays to do the work well. In a dry season the plant will not suffer from drought, and in a wet one water can find a ready exit. In old gardens the preparation of new beds for Roses requires equally as much care and even more so. Soils constantly manured may be thought the best, but I am strongly in favour of some new sweet loam added in part if not entirely. Much may

be accomplished to render a soil, perhaps heavily charged with manure, fit for new plantations of Roses by the addition of chalk or lime; in fact, there are few soils that would not benefit considerably from an addition of one of these articles, and all burnt garden refuse should be freely admixed.

If standard Roses are planted singly by lawn or drive, large holes should be opened and good soil and manure put in. Also where climbers on walls or arches, or pillar Roses are planted, deep trenching is even more necessary in their case, seeing that they are permanent fixtures and cannot well be transplanted periodically. Soils vary so considerably in their nature that it is difficult to suggest what to do without inspection, but, as a rule, light soils should have clayey loam added and the manure obtained from the cow shed. If the soil is very shallow, a good layer of cow manure in place of some of the gravel subsoil is a good plan to adopt. Heavy soils benefit by the addition of gritty material, burnt earth, and well-decayed stable manure.

The charming Tea and Hybrid Tea Roses now so largely planted are almost invariably budded on the seedling Briar, and as this is a deep-rooting stock deep trenching is desirable. Even on a gravelly soil it pays best to remove the gravelly subsoil and replace with better material. If the subsoil is in good condition the seedling Briar quickly sends its roots down, and it is owing to this fact that Roses upon this stock are so exceptionally fine in autumn. Even Hybrid Perpetuals that are ripening off on Manetti give handsome autumnal blossoms.

How marvellously has the aspect of our Rose gardens changed during the last twenty years. It is possible now by making a wise selection to have as brilliant a display in September as in June and July; in fact, many kinds are more beautiful now than they have been all the season. Beds of the glowing Grüss an Teplitz, Mme. Eugène Resal, Coralina, &c., completely put in the shade the zonal Geraniums that have suffered so much from recent rains. It is scarcely necessary to say that planting should be done in fine weather. If the plants arrive from the nursery during a wet period it is much better to remove all foliage and heel them in in the shade, awaiting a fitting opportunity to plant.

And, again, some good mixture should be prepared in advance, so that when planting each plant may receive a good shovelful among the fine roots. Potting loam, leaf-soil, and burnt earth in equal parts make a fine mixture. Roses so planted if lifted two or three years hence will be found to be a mass of fibrous roots.

Personally, I believe in occasional transplanting; in fact, where large quantities of standard Teas are grown, I would lift them every November and heel them in under a north wall, taking care to give them ample protection. By replanting in spring one has the satisfaction of seeing the trees escape injury by spring frosts and winter injury, when too frequently they would be killed outright if not removed. Dwarf Teas and Hybrids may be earthed up and will be found perfectly secure when unearthed in April, but in their case lifting every third or fourth year will impart new vigour to the plants.

PHILOMEL.

## NEW AND RARE PLANTS.

A NEW ASTILBE A. CHINENSIS VAR. DAVIDII.

THIS new Astilbe was shown by Messrs. J. Veitch and Sons, of Chelsea, at the meeting of the Royal Horticultural Society on August 5, when a first-class certificate was awarded by the floral committee. It is one of the most handsome perennials introduced of recent years, and is one of Mr. Wilson's finds in China. We are beginning now to reap the fruits of his labours. This new Astilbe will probably become a popular garden plant. It is fully 6 feet high, and the tall pyramidal spikes of rose-purple flowers produce a very striking picture in the garden. Such a plant is happy in many places, by waterside and elsewhere, a bold group showing best the true value of the introduction.

## USES OF BRITISH PLANTS.

VI. SAXIFRAGEÆ.

(Continued from page 116).

**SAXIFRAGE** (*Saxifraga oppositifolia* and *S. umbrosa*).—These two species are cultivated. The former, an alpine plant, from North Wales to Scotland, is a pretty rock plant, and the latter is wild in the West and South-West of Ireland, and too familiar to need description.

*S. granulata* of meadows has small bulbs, suggesting the name, which have been used formerly in medicine.

**Gooseberry** (*Ribes Grossularia*) occurring wild in copses was introduced and cultivated in gardens in the reign of Edward I. (thirteenth century). It is the origin of all garden forms, which are now innumerable.

**Currants** (*Ribes rubrum*).—The red and *R. nigrum*, the Black Currant, was first cultivated in Edward I.'s reign. The name "Currant" was given to them from their resemblance in size to the Corinthian Grape or "Corinths" often called "Grocer's Currants." The red has produced a white variety, but the Black Currant has developed none. The leaves of this species have been used to adulterate tea leaves. Jams and jellies are the most important uses of these fruits, which are only slightly improved forms of the wild plants.

CRASSULACEÆ.

**Orpine** (*Sedum Telephium*).—This plant bears clusters of rosy purple flowers and fleshy leaves. It occurs in hedge banks, &c. It has long been used in medicine, as in the "Bewe (a drink) of Antioche" of the fourteenth century.

**Wall Pepper** (*S. acre*), a small tufted plant with star-like yellow flowers and minute fleshy leaves, growing on walls and rocks, is exceedingly acrid to the taste, hence its common name. It is an emetic, and has been used for ulcers, &c., as the bruised leaves will blister the skin.



*Houseleek* (*Sempervivum tectorum*).—The leaves of this plant have long been a familiar remedy for cuts and bruises, burns and scalds; but they have no real virtue beyond a slight astringency. It was always grown on roofs, not only in England but on the continent, under the idea that it protected the houses from lightning. Its favourite place is on a thatched roof, over which it can spread and into which the roots can penetrate easily. In the fourteenth century it was called Sengrene (*i.e.*, "Evergreen") and Jovis barba. It was used in "an oynement cold for schaldyng or brennyng," as well as in a preparation for deafness.

## LYTHRACEÆ.

*Loosestrife* (*Lythrum Salicaria*).—The purple Loosestrife is a familiar plant by watersides, bearing long spikes of purple flowers, the three forms of which have been elaborately described by Darwin. It is an astringent plant, and has been much used in Ireland by the peasantry for certain complaints requiring this property.

## ONAGRARIÆ.

*Rose Bay* or *French Willow Herb* (*Epilobium angustifolium*) is a tall purple-flowered plant, a variety of which is often cultivated. The leaves have been used for the adulteration of tea. It is said that the young shoots make a good substitute for Asparagus. The hairy or silky seeds can be used for stuffing, but are of no value for weaving, as it has been tried mixed with cotton and found to be ineffectual.

*Evening Primrose* (*Oenothera biennis*).—This is an importation from America in 1629, which escaped from cultivation and established itself in many places. It was formerly grown in the kitchen garden for its edible roots, which are wholesome and nourishing, somewhat resembling Parsnips. The generic name signifies "wine-catcher," because the roots were eaten with wine as olives are.

## CUCURBITACEÆ.

*Bryony* (*Bryonia dioica*).—This is a climbing plant, the male and female flowers being on distinct plants, the latter bearing red berries, both having green flowers. The root grows sometimes to an enormous size, and, though the juice is powerfully cathartic, the large quantity of starch might be utilised. The juice is poisonous, blister-

ing the skin. The French have even called it "Navet du Diable." It is often, but erroneously, called "Mandrake" in the country. It was called "Wylde nepte" or Nep in the fourteenth century, and used as a remedy for the "Morsowe" and as an ingredient of "Dwale," an anæsthetic drug taken before any operation. It was also used with mustard and honey to make the face "rody" or red.

## UMBELLIFERÆ.

*Sea Holly* (*Eryngium maritimum*).—This is a familiar seashore plant, with bluish green smooth leaves and flowers in heads and not umbels. The long roots were formerly used as a restorative, but they do not appear to have any real virtue. With sugar they have been made into sweetmeats. It is said that the "kissing comfits" alluded to by Falstaff were composed of them, the young shoots have been eaten as Asparagus.

*Hemlock* (*Conium maculatum*).—This is one of our most poisonous wild flowers, easily recognised by its smooth and distinctly spotted stem and finely divided glaucous foliage. It grows from 3 feet to 5 feet in height; the roundish fruits have waved ridges upon them. It is much used by medical practitioners, being included in our Pharmacopœia. People have often been poisoned by eating the leaves as Parsley. The poison of this plant was used in ancient Greece for sentences to death such as was administered to Socrates.

*Alexanders* (*Smyrniolum Olusatrum*).—The English name is apparently a corruption of the Latio, meaning "Black pot-herb." It was formerly cultivated as such, and is found wild about villages, monasteries, &c., where it was formerly grown. It was the young shoots and petioles of the leaves that were eaten as Celery is now, though probably not blanched. They were used for flavouring soups in the same way as Celery is sometimes used, especially in Malta, where it is never earthed up. The fruit is black, which suggested the name, and, like many other umbelliferous plants, it is carminative. It was called Stannerick and "Wild persile" and other names in the fourteenth century, being used for various remedies; thus the fruits, *e.g.*, were taken for a "glaymyd," *i.e.*, nauseated stomach.

GEORGE HENSLOW.

## AN AUTUMN FLOWER.

At this season one of the most beautiful flowers in the well-planted garden is *Chrysanthemum uliginosum*, which is shown as a group on the lawn, a purpose for which it is not often used. It stands out unfettered by neighbouring things, and makes a brave mass of white in September when the Tiger Lilies are in full splendour and the Asters make blue clouds in the woodland. We planted a lot of this *Chrysanthemum* in an old dry moat, but where the soil is moist; its growth is remarkable. A hundred flowers now wave in the winds. We planted a lot also close to the water edge, and there they have also thrown up sheafs of bloom. It is so hardy and strong and free in all ways that we should like to see it grouped more in gardens, and not confined to the mixed border.

## TREES AND SHRUBS FOR ENGLISH GARDENS.

## WEeping CHERRIES.

A WEeping habit accords much better with the flowers and mode of flowering of some trees than it does with that of others. In no instance, however, can it be said to heighten the natural beauty of trees, or add more to their grace, than it does in the case of the weeping Cherries. The beauty of the flowers, which in many instances are themselves drooping or pendent, seems especially to require the accompaniment of free graceful lines rather than anything in the shape of a stiff or erect mode of growth. Very few Cherries, however, in either their typical or selected forms, are other than graceful; and of the weeping ones it can in most cases be said that they merely accentuate that characteristic.

The use of weeping trees in gardens, like that of all plants which depart from the normal either in form or colour, requires restraint, and the more marked or violent the divergence is the more are these required. To the weeping Cherries, happily, these words scarcely apply. There are very few that, from considerations of beauty and fitness, could reasonably be overplanted. In the following notes I have given the names of the best of them, with a few descriptive words to each. There are three kinds of weeping Cherries, as of the weeping kinds of other genera: First, we have such a species as *Prunus pendula*, a natural weeper, which comes true from seed; second, there are pendulous forms of species that normally are erect, which have to be trained up, or budded on more or less lofty standards; third, there are dwarf or prostrate species, naturally shrubs, which, by being worked on standards of other sorts, are made into artificially weeping small trees.

The word "Cherry" is here made to apply to the old genera of *Cerasus* and *Padus*—the "Cherries" and "Bird Cherries"—but in accordance with modern usage the generic term "*Prunus*" is employed.

*Prunus acida semperflorans* (All Saint's Cherry).—This interesting and pretty variety of a dwarf Cherry is noteworthy in two respects—it

THE TALL OX-EYE DAISY (*CHRYSANTHEMUM ULIGINOSUM*).



has slender, pendulous branches, quite different from the Wild *Prunus acidula*; and, secondly, it has the rare quality of continuing to flower from late spring to autumn. At the latter season fruits and flowers may usually be seen together on the branches. The flowers are white and single. I have not met with this little tree more than 6 feet to 10 feet high, and it is usually budded on standards.

*P. Avium pendula*.—The weeping variety of the Gean is perhaps less elegant than any of the weeping Cherries. The branches are perfectly pendulous, but stiff and straight, the effect consequently is somewhat formal. In some positions, however, this may be thought to be an advantage. In its foliage and in its single pure white flowers it does not differ from the Gean—a tree native of Britain. It should be budded on high stocks of the type.

*P. Chamaecerasus pendula*.—The Siberian Cherry, as this species has been termed, is a shrub with small, ovate or obovate, dark green glossy leaves. Its flowers are borne in May in short clusters, and each flower is less than 1 inch in diameter and white. The pendulous form when budded on standards makes a pretty, rather mop-headed little tree.

*P. Mahaleb pendula*.—The Mahaleb is well known for its remarkable profusion of pure white blossom and its free, graceful habit. In this variety the pendent character of the branches is not unduly marked, but is sufficient to add greatly to the beauty of the tree. It is not only one of the best of Cherries but of all flowering trees, and is as well adapted for planting in groups as it is when isolated as a single specimen. The flowers, which appear late in April or in May, are borne on short racemes and in such abundance as to envelope the tree in a snow-white mantle. Every garden should have at least one weeping Mahaleb. There is another weeping form of this species, introduced a few years ago from the continent. It is named "pendula Bonninii," but I have not had sufficient experience of it to be able to say quite definitely what its value is. But no doubt it flowers with the same profuseness as other forms of the Mahaleb, and as regards habit it is apparently the most distinctly pendulous of any. It is probably in this that its chief claim to notice consists.

*P. Padus pendula*.—A weeping variety of the common Bird Cherry will, no doubt, be an acquisition, but it is of too recent appearance here to say much about it. It is curious to note that there is a variety (stricta) with an exactly opposite tendency, branches and racemes being quite erect. *P. virginiana*, a nearly allied Bird Cherry from North America, is also represented by a pendulous form.

*P. pendula* (*Cerasus pendula rosea*).—The name "pendula," which so often does duty to distinguish a variety, is here a proper specific designation, having been given to this Cherry by Maximowicz, the well-known botanical traveller in North Asia. *Prunus pendula* is as

naturally pendulous in habit as the Babylonian Willow is, and it should, if possible, be obtained on its own roots. It is an early-flowering kind—probably the earliest of the Cherries—being in bloom as a rule soon after April comes in. The flowers are of a lovely shade of delicate rose, but are not large. They are, however, freely borne, especially after a hot, ripening summer and autumn. In the United States it succeeds even better than here, and by some authorities is regarded as the loveliest of Japanese trees introduced to that country. So much cannot be said of it in Britain, but it is well worth cultivation for its beauty and earliness.

*P. Puddum* (Himalayan Cherry).—Like the

tion, and may be roughly described as a deciduous tree with very dark green shining foliage, like that of the Portugal Laurel, and producing in June racemes of dullish white flowers like those of the common Bird Cherry, but even more abundant. The weeping variety is rather symmetrical, even formal, in habit, but is a distinct and pretty tree. Both species and variety are in the latest-flowering group of Cherries.—B.

## TREES AT HIGHCLERE CASTLE,

THE RESIDENCE OF THE EARL OF CARNARVON.

A LADY once wrote of this noble place: "Trees are its great glory." That is but partially true.

Certainly trees are here in immense abundance, and in the grandest and most perfect of forms, but the place owes very much of its grandeur to its extent, its beautiful undulations, its delightful expanses of verdure, and withal to its splendid keep. The area of the park, lakes, and the noble enclosed woods is some 3,000 acres in extent, and amidst other features includes the lofty Siddon Hill, situate on the south, which is so splendidly wooded. It is the loftiest eminence probably in all Hampshire, for Highclere is in the north-west division of that fine county.

The great tree feature of the place is its majestic Cedars, and with these grand rotund Beeches; Oaks are not numerous; Limes are plentiful, and much used in the formation of fine avenues. In the woods trees of all descriptions abound, and giant conifers bear testimony to the fitness of the soil for them; but this special reference is to the trees in the extensive pleasure grounds and portions of the park which are near the castle. A former Earl of Carnarvon is reported to have said that "trees were excrescences on the earth useful to pay debts with." That is not a view generally held happily of these glorious adjuncts to scenery and to human habitation; but possibly that belief may have had something to do with the planting of so many Cedars of Lebanon, as these do not offer for the payment of debts the same temptations that great Oaks do. Happily Highclere is in no danger of being shorn of any of its tree glories. They are in excellent keeping with the lofty castle, and are much cherished.

Two of these Cedars growing near the castle have interesting histories. They were raised from seed brought in a cone from Mount Lebanon by a Dr. Brooke in 1739. Out of several sown only two grew, and these probably then kept in pots and perhaps under glass for some years, were not planted until 1767, or nearly thirty years later. One of these trees has a massive bole 4 feet from the turf 20 feet 9 inches in circumference. It is some 120 feet in height, and has a great spread of branches. It is interesting to note that here nearly all the Cedars have assumed a pyramidal form, their massive limbs having gone erect from the trunks, though there are a couple of weeping habit. The second tree has a bole 3 feet from the ground 18 feet 6 inches, and one low branch, which has gone out horizontally, has a circumference of 7 feet. A batch of Cedars was raised in 1772 from a cone brought from Wilton House, Salisbury. These were planted in the year 1778. It is interesting to note that the stem growth of this batch was more rapid than was that of the



A VARIETY OF THE MAHALEB CHERRY (*PRUNUS MAHALEB* VAR. *CHRYSOCARPA*) AT KEW.

preceding species, this Cherry is of a naturally pendulous habit, that character, however, being most marked in its lower branches. The specific name, which, to say the least, lacks elegance, is probably a native title for the tree. The species is very rare in this country, but in good years almost rivals the Mahaleb in the profusion of its flowers, which are white with a rosy tint. It is a true Cherry (*Cerasus*), and bears a very palatable fruit.

*P. serotina pendula*.—The "Rum Cherry" or "Wild Black Cherry"—for it is known in North America under both these names—is not one of the best or most popular of Cherries in this country. It belongs to the *Padus* sec-



two before-mentioned specimens, for in 1832 they were distinctly larger round the bole, but since then the older trees have gone ahead, and are now much the finest. Some Cedars have been broken by heavy snowfalls; some not at all, and these latter are in form quite perfect specimens, not only great in height, but in spread of branch. There is in the pleasure grounds, which are just now being extended to nearly 40 acres, a grand tree of the Black Walnut (*Juglans nigra*). It has very handsome leafage. The Tulip Trees are very fine also. So, too, are the Sycamores. Pinuses of the more modern types are few, but there is a splendid *Picea cephalonica*, some 80 feet in height, and in the park Wellingtonias form very handsome conical objects. A. D.

## ORCHIDS.

### TWO NEW NATURAL HYBRIDS.

LÆLIO-CATTLEYA PHILLIP STOKES (LÆLIO-CATTLEYA ELEGANS × CATTLEYA LEOPOLDI).

**A** STRIKING novelty. The flowers equal in size those of a good Lælio-Cattleya elegans, but their depth and brilliancy of colour alone attract attention. It is most interesting to note that in all dark L.-C. elegans and hybrids from them the influence of the Cattleya Leopoldi parent predominates. In nearly every case there is a substance and warmth of colouring in each flower clearly derived from the Cattleya parent. In the present hybrid the flowers might almost be termed self-coloured. The sepals, petals, and lip are wholly of a deep cochineal purple, darkest on the broad kidney-shaped anterior lobe of the lip. Both sepals and petals bear conspicuous spots of a still deeper shade, the greatest number being on the petals. The infolded side lobes are of soft carnation and overlap the anther cap, slightly turned upwards at their apices. The isthmus connecting the three lobes is remarkably short and narrow.

LÆLIO-CATTLEYA QUEEN ALEXANDRE (LÆLIO-CATTLEYA SCHILLERIANA × LÆLIA PURPURATA.)

A most interesting hybrid, now, like the above, in flower with Mr. R. H. Measures. The wonder is, considering the length of time that Lælio-Cattleyas elegans, schilleriana, and Lælia purpurata have been imported and cultivated, that the presence of this and the preceding hybrid has not previously been known or suspected, as it is quite reasonable to suppose that as we have natural hybrids between Cattleya Leopoldi, Lælia purpurata, and Cattleya intermedia, those hybrids must in some cases, and as the two under-mentioned now prove, have crossed between themselves and with the parent species. There can be no doubt as to the correctness of the parents ascribed, as fortunately flowers of the true L.-C. schilleriana were at hand for comparison. The plant is not large and has by no means attained the vigour it will do under the able management of Mr. Coles. The sepals and petals are both of a dainty shade of rose-lilac, just darkened on the clearly-cut edges. The petals, if anything, are the darker and further distinguished by a mass of nearly confluent pin-like dots of light amethyst, situated towards the apices. Crimson velvet describes the colour of the lip, but conveys only a poor idea of its richness. The lateral openings are reduced to mere slits, the anterior lobe appearing to be a continuation of the side divisions. The apices are simply expanded laterally and are tipped with deep crimson velvet, leading up to which from the soft white of the inner surfaces are numerous branching veins of dark rose. Externally the colour is the same except that a rose suffusion takes the place of the veins. Immediately beneath the apex of the column the colour on the median lobe assumes a broadly wedge-like shape, passing in a narrow stripe to the foot of the column. The flowers are of ideal shape, and as

a greater number are produced on a spike the hybrid should be well worth a good place, even in such a splendid collection of Orchids as that at the Woodlands.

CATTLEYA HARDYANA VAR. MAGGIE HODGSON.

It has never been the good fortune of the writer to meet with a handsomer form than this. Had this been the original form of Cattleya hardyana there could have been no confusion respecting its origin as a species or hybrid. The two parents (*aurea* and *Warscewiczii*) are both shown, and in a very remarkable manner. The sepals and petals are those of a good deep-coloured *Warscewiczii*, and beyond their fine shape and size are not particularly noteworthy. The lip, however, differs from all other hardyanas. For two-thirds of its length the colour is that of *aurea*, alternately marked with old gold and deep crimson, brilliant in colour and regularly disposed. The remaining and anterior portion is simply a solid mass of deep red-crimson, its brilliancy the more enhanced by the abruptness with which it is joined to the *aurea* portion. Encircling the whole of the lip is a delicate frill-like edge of light rose-lilac. The plant at present has but one lead, which carries four flowers.

LÆLIO-CATTLEYA ELEGANS.

In September of last year THE GARDEN issued a supplementary illustration, showing one of Mr. Measures' houses of L.-C. elegans, and a hurried visit during the second week in August was again well repaid by the numerous and splendid varieties then in flower. The variety Albion, by reason of its superior beauty, was the first pointed out. Near it is a magnificent specimen of an unnamed variety carrying twenty-eight flowers, which show up the splendid shape and colour of the named form. The sepals are very stout and the petals quite as thick, but the edges are strongly undulated. Both parts are of a deep purplish crimson shade, only exceeded by the colour of the lip, which on the central portion rivals that of a Morello Cherry, but at the extreme edge is several degrees lighter. A distinction not noticeable in other forms of elegans is that the apices of the side lobes are in no way reflexed, but project horizontally beyond the column.

VAR. R. H. MEASURES.

A superb variety with huge pseudo-bulbs, the leading one of which bears a spike and six flowers proportionately large. The sepals are a peculiar but very pleasing colour, soft cream yellow, tinged with green, tenderly touched with rose. The petals are flushed with rose and pencilled with darker lines, lip glowing Tyrian purple, dashed with fire-red. A broad stripe of the same colour passes from the front area to the foot of the column; with that exception the remainder of the tube's inner surface is soft white. On the outer side, soft rose tipped with red-purple.

A showy form near by was at once noticed, but though well worthy of the distinction, a varietal name has not yet been given.

KING EDWARD VII.

A huge flowered form, combining the size of *L. purpurata* with the substance of *C. Leopoldi*, the latter named parent being also evident in the numerous chocolate-maroon spots on the sepals and petals. The sepals are similarly coloured to those of R. H. Measures, but are delicately flushed with rose, not pencilled, chiefly on the central areas. The petals are almost wholly suffused with dark rose, lightest at the apices. In this variety, too, the lip is not so heavily crimped at the edges as is usual, gaining thereby an even greater appearance of solidity, heightened by its deep claret-crimson hue dashed with purple, almost sombre in shade. A broad stripe passes beneath the column, touched on either side with ochre-yellow. The remainder of the tube both inside and out is a soft rose flushed white, the apices only tipped with purple.

LÆLIO-CATTLEYA ELEGANS SYLVIA.

Though typical in shape, the flowers of this variety are of enormous size, exceeding the largest *Lælia purpurata* the writer ever saw. The sepals are of an indescribable shade of greenish yellow,

mixed as it were with rose—most attractive. The large boldly undulated petals have a similar ground colour centrally, but the outer portions are a warm carnation pink with rosy veins. The lip is very large. The front lobe is of the deepest wine crimson, approaching plum-purple. A broad isthmus still deeper in colour connects the front lobe with the remainder of the lip. The tube is soft rose externally, with stripe-like veins of magenta-purple. Nine flowers are carried on the spike. Near it is *L.-C. elegans* Rupert superba, now flowering for the first time. Except that it is larger and freer in colour, it is practically identical with the variety Rupert described in THE GARDEN of September 21, 1901, but that variety is quite eclipsed by the present form. Its colour may perhaps be best described as a blood red-purple, but at the same time of a brilliant hue. The spike bears eight flowers, and their enormous size and conspicuous colour render them very effective. Probably this and the preceding variety are the two finest forms of elegans known.

ARGUTUS.

## THE KITCHEN GARDEN.

### SPRING CABBAGES.

**N**OTHING new can be written I fear of this crop, but as both successes and failures are recorded in the pages of THE GARDEN, I ask the Editor's permission to note a few peculiarities of this useful vegetable. At the same time, I would like to make some brief remarks as to sowing in the autumn. I refer to "A. D.'s" note on page 137. With regard to the comments often made as to the plants bolting through early sowing, I find your well-known correspondent "A. D." says about 3 per cent. of the earlier sowings bolted, and I am glad to find the percentage was so small with him. Now such trials as he mentions are most interesting, as the writer of that note, unless I am much mistaken, travels about and sees a good many plots of early Cabbage, and is in a better position to note defects than the gardener who only sees his own and a few others of a like nature. For years my idea has been that much bolting happens through imperfect culture, probably through indifferent seed stocks, but more generally other defects. I am not sure either that "A. D." will agree with me or the majority of your readers. I will take poor seed stock first. Here I think I am on safe ground, as few vegetables of the Brassica tribe want more care in the seedling than Cabbage. Even this season, in our plot of, say, nearly 3,000 spring Cabbages, I could make out half a dozen varieties. I am aware it is an easy matter for seed to become mixed when being put up, but I fear it is in the growing season that most of the mischief is done, and to keep a good strain pure much care is necessary.

I now come to what I consider a more frequent cause of bolting, and that is planting weakly-drawn seedlings late in a loose open soil heavily manured. This excites a starved plant into growth and causes it to run prematurely. For some years I have given the spring Cabbage sown in July more space in the seed-bed, getting a sturdier plant; and another point I place even more importance upon is to plant in hard soil—land well trodden (not recently dug or manured); in fact, our first quarter of spring Cabbage for April cutting is always planted on the plot just cleared of spring Onions. As our soil is light the land is well rolled and trodden for the Onions and the plants are drilled in. Grown thus they make a firm short growth with ample fibrous roots, and are well able to stand extremes of weather. I firmly believe a rich root run at the time of planting is undesirable. It encourages a soft growth, and it is an easy matter to feed early in the year with fertilisers when new growth is active. It has often occurred to me how much better the plants are wintered in fields and market gardens compared to those in rich gardens—in fields there is less food and more exposure. My theory may be wrong, but last season I gave some half dozen



kinds a trial and did not act up to the advice given above, but gave a rich root run, and a more miserable lot of plants I have never seen—quite 50 per cent. bolted. I have also found too late sowing equally fatal. "A. D.'s" advice as to sowing in July is good, and a date between the 10th and 20th is safe, but the earlier one for the North. Even then dates cannot be relied upon, as in a dry season, unless given ample attention, seed takes much longer to germinate, and in a showery one growth is more rapid. Planting should be done earlier. I have referred to crowded plants, and I would always advocate planting in a small state in preference to starving them in a crowded seed-bed. I find we get much earlier Cabbage by using fertilisers early in the year than by rank manure at this season and entire freedom from running. From careful observation for the past thirty years I find we have earlier kinds (smaller and better) and better stocks—gains in the right direction.

G. W.

### THE CHINESE LIBOCEDRUS.

THE genus *Libocedrus* is popularly confused with *Thuja*, and one often finds, e.g., that nurserymen sell *Libocedrus decurrens*, the Rocky Mountain species, as *Thuja gigantea*, while true *Thuja gigantea* is passed off as *Libocedrus decurrens*. *Libocedrus* closely resembles *Thuja* in habit, but is easily distinguished by the character of the fruit and of the seeds. In *Libocedrus* the fruit is made up of either four or six scales; the lowest pair reflexed and minute; the next pair (middle pair) large, thick, and woody; the uppermost (innermost) pair, when present, coalesced into a median septum. The middle pair only is fertile, each scale bearing two seeds. The seeds are winged above and samaroid. In *Thuja* there are three to five pairs of scales in the fruit, of which either the two or three middle ranks or the lowest two pairs are fertile. Under each scale there are two or three seeds, which have either two lateral wings or are wingless. *Thujaopsis* differs from *Thuja* in having five winged seeds on each fertile scale.

There are now known eight species of *Libocedrus*, the geographical distribution of which is remarkable, showing that in early geological times the genus was widely spread; indeed, a fossil species has been found in the Isle of Sheppey. Two species now occur in Chili and Patagonia, two species inhabit New Zealand, one species is peculiar to New Guinea and another to New Caledonia, one species occurs in Oregon and California, and another in China.

*Libocedrus macrolepis*, *Bentham*, has recently been introduced into cultivation in England by Messrs. James Veitch and Sons from seeds collected at Szemao, in Yunnan, by Mr. E. H. Wilson, when he was paying me a visit at that station in the autumn of 1899. The tree is very ornamental, and possesses most valuable timber, but it is doubtful if it will prove hardy in these islands, except in warm corners of south-western Ireland and Cornwall.

In southern Yunnan it is commonly planted in temple grounds, but it was observed and collected by me growing wild in ravines at Talang, where it occurs near water-courses. Logs of the tree are frequently dug up by the

natives in the forests close to the banks of streams, where it was buried by the action of floods years ago. It is this dug-up wood which is especially prized by the Chinese for making coffins of the most esteemed kind. There is a large trade in coffin wood at Mapai, in North Tonking, which is reported to be similarly dug up, but I have not been able either to verify the statement or to identify the species concerned. The *Libocedrus* grows to 100 feet high, assuming a graceful pyramidal form, and the bark is remarkably white in colour. The photograph reproduced is that of a tree of this species, which is growing in the military cantonment at Szemao.

Like *Cupressus* and *Thuja*, the *Libocedrus* is known to the Chinese as the *Po* tree, the hieroglyphic for which is composed of the sign for tree and the sign for white; and these trees are probably called white trees on account of the purity of the wood. Cypress and *Thuja* are early mentioned in Chinese annals, and it was the custom 2,000 years ago to plant these trees around the tumuli where were buried the feudal princes. They were chosen as stately long-lived evergreen trees to symbolise the

lengthwise like a boat in shape, and are lanceolate and acute, the apex being free. The facial pair of leaves are flat, oblong, obovate, one-nerved and awned at the summit. The leaves are about one-third of an inch long. The cones are solitary, borne on lateral branches, and are elliptic-oblong, roundish in section, obtuse, and composed of six woody scales decussately opposite. The two outermost scales are minute and reflexed; the two middle scales are elongate, about seven-eighths of an inch long, erect and fertile, each bearing two seeds. The seeds are oblong, produced above into a large falcate wing, the seed and wing being together a little shorter than the scale.

There are specimens at Kew collected by Anderson at Hotha, in S.W. Yunnan; and others (No. 11,566 and A, B) collected by me at Talang and Szemao from wild and cultivated trees. At the latitude of Szemao (23°) it occurs at altitudes varying from 4,000 feet to 5,000 feet.

In the herbarium at Kew, on the same sheet with Anderson's specimen, is mounted a tiny barren branch of a *Libocedrus*, which was collected by Bourne in North Formosa. It is difficult to say whether this represents a mere variety of the Yunnan species or a new species. The leaves are more flattened, larger, and of a different aspect. Matsumura, referring to a specimen collected in the same part of Formosa, simply says "*Libocedrus* sp.,"† apparently not having good material. He calls it by the same Chinese name as Bourne, viz., *Hsiao-Lam*, adding another native name, signifying "yellow flesh tree." Bourne notes that it is the most valuable wood in Formosa. In South Formosa *Hsiao-Lam* is the name given to a species of *Machilus* with excellent timber.‡

Mr. H. B. Morse, who was formerly Commissioner of Customs at Tamsui, tells me that the *Libocedrus* there is a most beautiful wood, and promises on his return to China to send a specimen to Kew. As the Yunnan wood is very valuable I strongly recommend the planting of *Libocedrus macrolepis*, which is now procurable in warm corners of Ireland and in the United States, where it may become of economic importance.

AUGUSTINE HENRY.



THE CHINESE LIBOCEDRUS MACROLEPIS IN THE MILITARY CANTONMENT AT SZEMAO.

(Recently given a first-class certificate by the floral committee of the Royal Horticultural Society when shown by Messrs. J. Veitch and Sons, Ltd., of Chelsea, who introduced it.)

belief in immortality, which was then, as now, craved by the human soul. The Lolos, who are the aboriginal inhabitants of Yunnan, hold the *Libocedrus* in high esteem, and call it the *Su* tree; and in their peculiar and ancient script it is figured as 𣎵, which is probably a picture of a branchlet turned on its side. The Lolos say that there is a *Libocedrus* tree in the moon, and add, with some naïveté, that if one could obtain and eat the seeds of this lunar tree immortality would be acquired.

*Libocedrus macrolepis* was originally described by Kurz as a new genus *Calocedrus*,\* because he supposed that its seeds were peculiar. They are like those of the other *Libocedrus* species; and in the "Genera Plantarum" (iii., page 426), *Bentham* referred the tree to its correct generic position. In habit it strongly resembles *Thujaopsis*, and may be described as follows:—A tall tree, with white bark, flattened branches, and coriaceous leaves, which last are often glaucous. The leaves are decussately opposite and arranged imbricately in four vertical ranks. The lateral pair are folded

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### COPPER BEECH HEDGES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was pleased to find your correspondent "T." (August 16, page 109) having a good word for Beech hedges. We often find the Holly and the Yew largely used in gardens for this purpose, and while they are very ornamental and make capital hedges, they are not quite so good under all circumstances as the Beech or Hornbeam.

\* *Journal of Botany*, 1873, page 193. *Cum tabula*.

† *Tokyo Botanical Magazine*, 1901, page 137.

‡ *Henry*, in *Trans. As. Soc. Jap.*, xxiv., *supp.*, page 79, No. 893.



Some object to the Yew on account of its poisonous qualities, others to the Holly because it is more difficult to clip and looks untidy for some time after the clipping operation. Neither of these objections can be raised in regard to the Beech. Hence it is one of the best of our many hardy trees both for screens and hedges. One seldom meets with the Copper Beech used for this purpose. Now I think this is a mistake, for this variety will do equally as well for forming a good fence as the common green, and to my mind is far more ornamental. We have a fence of the Copper Beech dividing the kitchen garden from the pleasure grounds 138 yards long, 8 feet high, and from 4 feet to 5 feet through. It forms a perfect wall on either side, and in the spring is one of the most interesting features of the place. It would be useless planting the Copper Beech on a wet or heavy soil—a light soil suits it best. The hedge in question was planted about seventy years ago from seedlings raised by the then owner of the place, the Hon. and Rev. R. Wilson, father of the present Baroness Berners. The hedge is now in perfect health, and all that is necessary is an annual clipping. This should be done about the end of August, before the wood gets hard.

T. B. FIELD.

Ashwellthorpe Hall Gardens, Norwich.

## PLANTS FOR SUMMER EFFECT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was assured the other day during my visit to THE GARDEN office that the staff were always ready and anxious to help their clients. I therefore venture to ask if you will get me cultural directions as to raising and growing of the following for planting out in summer in the garden. I want cultural directions as to raising and growing the following subjects: *Acacia lophantha*, *Solanum robustum*, *S. marginatum*, *Koniga* (*Alyssum*) *maritima*, *Artemisia arborescens*, *Amaranthus tricolor*, *Chamaepuce Diantha*, *Cineraria maritima*, *Centaurea candidissima*, *Isoloma hirsuta*, *Solanum jasminoides*, and *Cassia corymbosa*.

ALPHA.

[*Centaurea candidissima*.—Formerly this was propagated from cuttings in the spring for bedding the same season, but great care was required, as the woolly stems were apt to rot off, yet I have succeeded well sometimes. The best method, however, is to sow seeds. The seeds should be sown in August in pans or boxes, using any ordinary compost. Place on a shelf close to the glass in a cool greenhouse; if the seeds are good they germinate freely. Care must be taken that the soil does not get too dry. After they are well started they may be pricked off in pots or in the shallow boxes which are now so much in use. Kept well exposed to the light and as close to the glass as possible, in a cool greenhouse, they will be ready for potting early in February, and after they have made a start will do well in a frame or any light position where they can be protected from severe frost.

*Cineraria maritima*.—This may be propagated from cuttings in spring, but the stems are liable to rot. Short side shoots make the best cuttings, and they should only be put into the soil just deep enough to keep them firm. Seeds sown early in the year will make good plants for bedding the same season, or they may be sown in the autumn and treated the same as the *Centaurea*.

*Solanum marginatum*.—Propagated from cuttings in February will make good plants for bedding the same season. Plants taken up from the ground are difficult to keep through the winter, but a few grown in pots and kept in a cool greenhouse through the winter will give a lot of cuttings if put into a little extra warmth a few weeks before the cuttings are required. Cuttings succeed best where there is a moderate bottom heat and a cool surface; they should be kept close, and only moderately moist until rooted. *S. robustum* and *S. pyracanthum* require similar treatment. These *Solanums* may also be raised from seeds, which to get good plants should be sown the previous autumn, but it is difficult to get good seeds sometimes, and it is desirable to rely on cuttings.

*Solanum jasminoides*.—To make any effect in the garden one year old plants should be used; it is easily propagated from cuttings in the spring, and may be grown on in a moderate temperature until well established, after which the plants will do well in a cold frame or out of doors. It should be grown in a light sandy soil, and to flower it well it must be well exposed to the sun.

*Koniga* (*Alyssum*) *maritima*.—The ordinary form may be raised from seeds, which should be sown in pots early in the spring. The variegated variety is usually propagated from cuttings. A few plants kept in pots on a shelf in the greenhouse through the winter will give a lot of cuttings in the spring. They root freely in the ordinary propagating frame, and may be potted singly and stopped as soon as they require it. After the plants are well established they may be kept in a cool frame until required for planting out.

*Acacia lophantha*.—This may be raised from seeds sown early in the year and grown on in warmth; they will make good plants the same season, but for sub-tropical bedding one year old plants are best. The seeds should be soaked in water and sown as soon as they have swollen. Sometimes the seeds take several days to swell. If sown before they have been soaked they take a long time to germinate, and come up irregularly.

*Cassia corymbosa*.—This half-hardy shrub should be grown in the greenhouse, but established plants will flower well in the garden. It may be propagated from cuttings in the spring. Short side shoots from plants that have been cut back make the best cuttings, taken off close to the old stem. They should be put in singly in small pots, and require to be kept close with a good bottom heat. Grown on one season in pots they make good plants for flowering in the open border the following season. The large terminal corymbs of bright yellow flowers are most effective. The plants may be taken up in the autumn and will be more useful the following season.

*Amaranthus tricolor*.—This may be grown from seeds, which should be sown early in the spring and grown on in heat until well established. Though it does well planted out in a warm situation it is a very tender plant and must not be exposed until all danger of frost is over. It is best to pot the plants on and grow them under glass until the coloured foliage is well developed. A light sandy soil should be used, as a rich soil causes too vigorous growth and the coloured variegation will not be so good. It is only in a sunny position in the garden that it is effective. Seedlings vary.

*Chamaepuce Diantha*.—This is a biennial, and may be raised from seeds. It is most effective as a foliage plant for bedding, and for this purpose the seeds may be sown in heat early in the spring, and will make effective plants the same season; but to flower them the seeds may be sown in July or August, and if protected during the winter they will flower the following season. *C. Casabonae* requires similar treatment. These are now included in the genus *Cnicus*, and *Cirsium* is another.

*Artemisia arborescens* is a shrubby plant which may be propagated from cuttings taken from young shoots in the spring. It is hardy, but may be grown on in pots and planted out the following spring.

*Isoloma hirsuta*.—This is a gesneriaceous plant and rather tender, but may be used for summer bedding in a sheltered situation. The plants should be started early in the spring and grown on in heat, but later on they will do

as well in the greenhouse as in the open ground. In starting them they should be fully exposed to the sun; they will then bear removal to the open ground without suffering.—A. HEMSLEY.]

## BOOKS.

**Vegetables and Flowers from Seeds.\***—This is a most useful work, designed for those who live in tropical as well as temperate lands, and is a trusty guide. All the vegetables and flowers that we grow in our gardens are described and illustrated, and careful information given about their cultivation. The following chapter concerning the Mushroom will show how excellent this book is, both for the beginner and those with some knowledge of kitchen and flower gardening: "Mushroom (*Agaricus campestris*); German, *Champignon*; French, *Champignon*; Dutch, *Paddestoel*; Spanish, *Seta*; *Seta de cardo*. It is needless to dwell on the merits of an esculent which is highly esteemed in the cookery of all European nations, especially as the Mushroom deserves to be prized quite as much for its nutritious qualities as for its delicious flavour. The principles of successful culture may be gleaned from a moment's consideration of the conditions which favour the natural growth of this fungus in the pastures of the United Kingdom and other countries. Mushrooms are never found in open fields during winter or spring, and seldom in the early part of the summer. But as autumn approaches, and the nights remain still and warm, with the soil moist and warm also, this delicacy is freely produced. The night temperature which is most favourable to the Mushroom is about 60° F. (15° C.). Much above this register tends to make the buttons come small, and below 55° F. (13° C.) soon brings production to an end. Where a steady temperature of 60° F., combined with a suitable degree of moisture, naturally prevails, or can be easily maintained, the artificial culture of Mushrooms is a very simple business. It will merely be necessary to make a bed of prepared manure, impregnate this with spawn, cover with a layer of rich loam, protect with mats or clean litter, and wait the uprising of the crop. In the United Kingdom pastures are spawned in June. Gathering may begin in August and will probably end in September.

"The period of natural production is, however, too brief to meet the public demand. Mushrooms are wanted at breakfast, luncheon, or dinner in every week of the year. The continuous call for this dainty has created quite a large and lucrative business. From the catacombs of Paris enormous quantities are daily placed on the markets or supplied to the manufacturers of various

\* "Vegetables and Flowers from Seeds in Tropical, Semi-tropical, and Temperate Climates." By Messrs. Sutton and Sons.



A GOOD BED OF MUSHROOMS.

(Reproduced from "Vegetables and Flowers from Seeds.")



tempting articles of food. In England, cellars, dark sheds, and vacant buildings are successfully utilised for the crop. But the method of greatest interest is that of growing Mushrooms on open-air beds of manure, even in the depth of winter, without the aid of any building whatever. This should be a most suggestive procedure for countries or districts where it is possible to secure necessary materials, and unless these are available the attempt to grow Mushrooms will prove futile. Open-air beds must be carefully prepared to sustain a regular temperature for at least three months. To do this needs a considerable bulk of manure, and there is no better material than that which comes daily from the stables of well-fed horses. The manure should be stored on the floor of a dry shed, where it must neither become dry nor be allowed to ferment. When a sufficient quantity has accumulated it should be made into a large round or square bed, laid down evenly and trodden firm as the work proceeds. If too dry each layer may be sprinkled with water. In a few days the bed will become hot all through. It must then be broken up and remade, putting the outside portions into the centre to ensure equality, and again it must be trodden firm. A loose bed is useless for growing Mushrooms. This process is to be repeated every three or four days, and when ready the stuff will be dark, soft, and sufficiently damp to be cohesive. Finally it must be made up on a foundation of rubble to ensure free drainage. When the plunging thermometer registers about 80° F. (27° C.) it is time to insert the spawn.

"Break each cake or brick into about six pieces and gently force each one into the manure 2 inches deep at intervals of 6 inches all over the bed. Close the manure tightly round the spawn and cover with a layer of rich fine loam, 2 inches or 3 inches deep, carefully firmed on to the manure. The bed must then be covered with sufficient litter or mats to retain an even temperature. In large gardens, which are equipped with every horticultural appliance, buildings having thick walls and substantial roofs are specially erected for growing Mushrooms.

"During high summer there is quite as much need for preventing the ingress of midday heat as there is for excluding cold during winter. This hint may be of some value in localities where unused buildings can be turned to useful account. The proper degree of moisture in a Mushroom bed is all-important. The manure should always be sufficiently damp to hold together, but it should not part with any of its water under pressure. A bed that is allowed to become dry will soon cease to be fruitful. Water when administered should be of the same temperature as the bed. In Northern India, the winter months, from September until March, are the most suitable for growing Mushrooms. As the fermenting material will raise the temperature inside a building a considerable altitude is necessary to get a sufficiently low initial temperature. In cooler countries this difficulty is not experienced. But the principles explained will in any case render it easy to form a judgment as to whether Mushrooms are possible of attainment."

## ESPALIER TRAINING OF PEAR TREES.

THE accompanying illustration of a Pitmaston Duchess Pear, grown as an espalier, reminds one of the old specimen trees trained in this way which used to be so commonly met with in nearly all our country gardens years ago. Why this system of training has gone out of favour and fashion of recent years it is difficult to say—certainly not through any fault or defect in the system itself—for better results both in



THE OLD ESPALIER PEAR PITMASTON DUCHESS IN THE CHISWICK GARDENS OF THE ROYAL HORTICULTURAL SOCIETY.

flavour and size of fruit are obtained from trees trained in this way than when grown as bushes or pyramids.

OWEN THOMAS.

## GARDENING OF THE WEEK.

### KITCHEN GARDEN.

#### POTATOES.

**N**O time should be lost in lifting the main crop. Unfortunately, owing to the continued rains and absence of sun, the disease is very prevalent in many places, and the longer the tubers remain in the wet ground the more likely is it to spread. Choose, if possible, fine weather for lifting the crop, and place under cover, but do not heap them together thickly. Look over the tubers once a week and remove all in any way affected, or the sound ones if they do not take the disease will certainly suffer in flavour. Burn up the haulm, bad tubers, and rubbish on the ground. The second-sized tubers should be placed thinly on shelves for next year's planting.

#### SPINACH.

This important crop will have to be well attended to at this season to ensure a regular supply throughout the winter. Several sowings should yet be made to make sure of this. So much depends on the kind of weather that is in store for us that no set dates can be relied on for making the principal sowing, but, generally speaking, the first and second weeks in September are about the time, for when the plants get too large they die off before winter. Before sowing give the ground a good dressing of lime, soot, and wood ashes, and make the ground moderately firm. Sow thinly, and thin out the earlier crops as soon as the first rough leaf is made. Good Spinach cannot possibly be grown when overcrowded.

#### ONIONS.

Complete the harvesting of all spring-sown crops as speedily as possible, and see that the bulbs are thoroughly dry before storing them away. Winter kinds sown last month should now be well up. Give a good sprinkling of soot and wood ashes and thin out to a moderate distance, as these will pass through a severe winter more safely when not left too thickly together. Run the Dutch hoe

between the rows frequently to keep down weeds and promote good growth.

#### ONION SEED.

See that the heads are securely supported against wind and rain, and do not cut them till thoroughly matured.

#### PEAS.

All late kinds have done remarkably well this year, and little difficulty should be found in keeping up a good supply for several weeks. The latest should have their tops taken off, which will induce the pods to swell rapidly. On light soils the roots should be kept well watered unless the wet weather continues.

#### CARROTS.

Thin out the later sowings to about 3 inches apart and lift the early roots, or many of them will split and be worthless. In many places this crop is anything but satisfactory this season, and the later sowings will prove of much value.

#### TOMATOES

growing outside should be kept free of all growths, and remove most of the leaves, exposing the fruit to the sun and air as much as possible. As soon as they show the slightest signs of colouring, cut and place them under glass to finish, when the flavour will be much improved. E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

## THE INDOOR GARDEN.

#### CALLAS

may be lifted and potted up, using a very rich compost of three parts turfy loam and one part dried cow manure, with an admixture of coarse sand. A considerable amount of the soil adhering to the roots may be reduced, so as to admit of moderately small pots being used. Pot firmly and provide thorough drainage, as these plants require liberal feeding and abundance of water when established. After potting they should be placed in a shady position and kept freely syringed to encourage root-action and maintain the foliage in a thoroughly healthy state.

#### AZALEA INDICA.

The Continental-grown stock is now coming to hand, and should be potted up immediately it is received. Liberal drainage and sandy peat should be used and well pressed round the root-mass. When potted give a good watering, and shade until root-action has fairly begun. The syringe



should be used freely to keep the leaves fresh. Guard against insect pests, which are liable to attack this plant. *Azalea mollis* should be potted in a rich fibrous loam, peat, and sand, and plunged in cocoanut fibre or ashes. Similar treatment may be given to many of the hardy shrubs used for forcing.

#### LILIAM HARRISI.

When the bulbs are received they should be potted firmly in a rich, turfy loam, with a dusting of coarse sand. Use clean, well-drained pots. Plunge the pots up to their rims in a cold frame in cocoanut fibre. Give little water until growth has well begun, after which more moisture will be required.

#### WATERING.

As the days become shorter and the nights colder, a drier atmosphere must be maintained and less water given to plants both at the roots and overhead. Watering is work which requires much judgment and experience on the part of the gardener. The grower who depends on elaborate mixtures possessing extraordinary virtues has much to learn. Good soil is important, but it can be completely spoiled by errors in watering. This, however, is not always recognised by the young gardener in charge; consequently one hears many complaints of the inefficiency of men with the watering-pot. Incessant watching to detect the requirements of various plants which differ widely in their demand for water alone can render a man perfect in this detail. JOHN FLEMING.

*Wexham Park Gardens, Slough.*

### THE FRUIT GARDEN.

#### APRICOTS.

Now that the fruits even on late trees are gathered any necessary pruning should be done in preference to leaving it until the leaves have fallen. By pruning while the sap is active the wounds readily heal, and there is not so much likelihood of gumming, as is the case when the trees are pruned during their resting season. In the case of trees upon which spurs are either wholly or partially depended upon to supply the fruit, the fruit-bearing wood upon matured trees often gets too far from the wall and gets injured by frost. It also becomes crowded, while the fruit is not of the best quality. Spurs of this description should be now thinned and shortened back to reasonable bounds. The extent to which this may be safely carried out depends upon the condition of the spurs. If skilfully attended to, however, in a piecemeal way and yearly followed up healthy old trees with long spurs may be remodelled as it were by forming new back breaks and thus furnishing themselves with satisfactory spurs. Examine young wood laid in during the growing season, and thin it if found necessary. Should excessively wet weather set in remove the mulching material.

#### MORELLO CHERRIES.

Once the fruit is gathered remove the protecting nets and prune the trees. It is safer to accomplish this at this season than during winter or even early spring, as the trees are not so liable to gum if it is done now. Thin out weakly wood that can be replaced with strong growths and nail in young loose shoots, keeping them from 1 foot to 15 inches apart. Crowding of foliage weakens the trees and promotes inferior fruit. It is advisable at the present time to give any trees that have had an attack of black aphid, although none may now be found, a thorough washing with Quassia Extract, which will effect an efficient cleansing. Bush trees should receive similar treatment, but the side growths for next year's fruiting must not be left too thick or the centre of the trees will become weakened.

#### PROTECTING PEARS.

The tomtit often works great destruction amongst Pears by attacking them near the stem of the fruit, and when the skin is broken, even of late varieties, the wasp lends assistance, but according to my experience it does not commence an attack upon late kinds. The best way to protect

wall or dwarf trees is to net them, but a single ordinary fish netting is useless to exclude the tit, and if no closer kind is available it should at least be placed two-fold over the trees. Various other modes of protection are sometimes adopted, such as enveloping the fruits in muslin bags. Pieces of cardboard with a slit to a hole in their centre slipped over the stem of the fruit also form a good protection against tits. Our pyramid and bush trees are covered in by an iron framework clothed with three-quarter-inch wire netting, which defies birds of every description.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

## SOCIETIES.

#### ROYAL HORTICULTURAL SOCIETY OF IRELAND.

A SPLENDID show was recently held in Merrioo Square, Dublin. A record attendance was anticipated if the weather was auspicious; but, though brilliant sunshine prevailed after three o'clock, the earlier rain and lowering sky had a deterrent effect on would-be visitors. However, there was a fashionable gathering, and nothing could have been more pleasant than the couple of hours in the late afternoon, when the sun shone gloriously on the pretty gardens. The whole scene was gay with colour.

The exhibits this year largely exceeded those of last year, the respective numbers being 310 and 274. The quality, too, according to experts, was better than previously, so that the promoters of the show have good reason to be satisfied with the success of their latest venture, except in so far as the rain spoiled the attendance. There were three large tents set apart for the exhibits, and each presented a very attractive appearance, the arrangement of the flowers, plants, fruit, and vegetables being such as to show them to the best advantage. In one tent the nurserymen's exhibits were a source of much admiration. They comprised fine collections from Messrs. Ramsay, Ball's Bridge; Messrs. Watson, Clontarf; R. Hartland and Son, Cork; Messrs. Dickson, Newtownards; Hugh Dickson, Belfast; Messrs. McGredy, Portadown; Messrs. Drummond, Dublin; and the Royal Botanic Gardens, Glasnevin. In another tent was a mixed collection of vegetables, fruit, and flowers, amidst which the collection of Begonias and Gladioli from Messrs. Hartland, of Cork, commanded special attention. The show of Grapes was particularly fine, and the Peaches also presented a very tempting appearance. In the third tent there was a magnificent display of Sweet Peas. The challenge cup presented by William Watson and Sons, Clontarf Nurseries, for Dahlias, &c., was won by R. W. Booth; the challenge cup presented by Lord Ardilaun for Dahlias, &c., by Lady Frances Doyle; and the challenge cup presented by R. Hartland and Son, Lough Nurseries, Cork, by Lord Ashtown. Medals for exhibits by nurserymen were recommended as follows:—The Botanic Gardens, Glasnevin; D. Ramsay and Son, Ball's Bridge (for a very fine group of Palms, Ferns, &c.); M. McGredy and Sons, Portadown; Watson and Sons, Clontarf; Hartland and Son, Cork; and Drummond and Sons, Dublin.

The judges were Mr. Black and Mr. Hamilton for fruit and vegetables; Mr. Gumbleton and Mr. Crawford for cut blooms, and Mr. Burbridge for plants and extras. The secretary, Mr. Walter Keating, jun., was an energetic and indispensable official.

The following were some of the principal prize winners:—Group of foliage and flowering plants, twelve, each different (Ferns excluded).—First, F. A. Millar, Esq., Windsor House, Monkstown (gardener, Mr. D. Colohan); second, David Drimmie, Esq. (gardener, Mr. Thomas Byrne). Exotic Ferns, six, each different.—First, F. A. Millar, Esq.; second, David Drimmie, Esq., J.P., Bellevue, Bootstown.

Dahlias, show of fancy only, stand of twenty-four blooms, not less than twelve varieties.—First, Hamilton Stubber, Esq., Moyne, Durrrow (gardener, Mr. P. Flanagan); second, Lord Cloncurry, Lyons (gardener, Mr. William Rigg).

Dahlias, Cactus, stand of twenty-four, not less than twelve varieties. A challenge cup, value £5, and first prize presented by Lord Ardilaun. Cup to be won three times before becoming the property of the winner. The society adds a second and third prizes.—First, Lady Frances Doyle, Wells, Gorey (gardener, Mr. James Mitchell); second, Lord Ashtown, Woodlawn, County Galway (gardener, Mr. Andrew Porter); third, Lord Cloncurry, Lyons (gardener, Mr. William Rigg).

Dahlias, Cactus, twelve sprays, three blooms in each, each spray to be a distinct variety, and Dahlia foliage only to be used. The general effect and method of staging to be taken into consideration as well as the quality of the flowers. A challenge cup, value £5, presented by Messrs. William Watson and Sons, Clontarf Nurseries, Dublin, to be won three times before becoming the property of the winner. Money prizes presented by the society.—First, R. W. Booth, Esq., Victoria House, Dalkey (gardener, Mr. J. A. Cavanagh); second, Lady Frances Doyle (gardener, Mr. James Mitchell); third, Lord Cloncurry (gardener, Mr. William Rigg).

Roses, stand of twenty-four blooms, not less than twelve varieties.—Second, Edmund D'Olier, Esq., Knocklinn, Bray (gardener, Mr. J. Harvey).

Roses, stand of twelve blooms, not less than six varieties.—First, David Drimmie, Esq., Bellevue, Bootstown (gardener, Mr. Thomas Byrne); second, Captain Mark Mansell, Oakley Park (gardener, Mr. John Ahern); third, Lord Ashtown.

Roses, Tea, stand of twelve blooms, not less than six varieties.—First, Edmund D'Olier, Esq. (gardener, Mr. J.

Harvey); second, F. A. Millar, Esq., Windsor House, Monkstown (gardener, Mr. Denis Colohan); third, David Drimmie, Esq. (gardener, Mr. Thomas Byrne).

Gladioli, stand of twelve spikes, not less than six varieties.—First, Lord Dunleath, Ballywater Park, County Down (gardener, Mr. E. H. Cole); second, Lieutenant-Colonel Jervis White (gardener, Mr. William Fitzgerald).

Pelargoniums, zonal, in single trusses, stand of twelve, not less than six varieties.—First, Mrs. T. Aliaga Kelly, 64, Upper Leeson Street (gardener, Mr. John Toner); second, David Drimmie, Esq.; third, W. H. Odium, Esq., and Mr. W. Goodbody, Esq. (gardeners, Mr. C. Pilgrim and Mr. J. Doherty).

Begonias, double tuberous, stand of thirty-six separate blooms, in at least eighteen varieties. Challenge cup, value £7, presented by Messrs. Richard Hartland and Son, the Lough Nurseries, Cork, with money prizes added by the society, the cup to be won three times before becoming the property of the winner.—First, Lord Ashtown; second, K. Hamilton Stubber, Esq. (gardener, Mr. P. Flanagan).

Collection of hardy cut flowers (annuals and biennials excluded), to be shown in vases which will be provided by the society. Space not to exceed 16 feet by 4 feet. Prizes presented by Lord Ardilaun.—First, Right Hon. Lord Plunket, Old Connaught, Bray (gardener, Mr. W. Webster).

Asters, any variety, stand of twelve blooms. Prizes presented by Messrs. William Drummond and Sons, Limited.—First, Reginald T. Harris, Esq.; second, David Drimmie, Esq.; third, Mrs. T. Aliaga Kelly (gardener, Mr. John Toner).

Carnations or Picotees, stand of twelve bunches, three sprays of one variety with foliage to form a bunch, at least six varieties, Malmaisons excluded.—First, Surgeon-General T. Beaumont, Palmerston Park (gardener, Mr. John M'Linden); second, Lord Cloncurry (gardener, Mr. William Rigg). First-class certificate of merit: Mrs. Armstrong, for seeding Carnation; to H. A. Smallman, Esq., for seeding Picotee; to Mr. W. E. Gumbleton, for seeding new Dahlia Colaret President Viger.

Twelve bunches Sweet Peas, twelve distinct varieties named, to be shown in vases, which will be provided by the society, with first prize a bronze medal, presented by Messrs. Toogood and Sons, Royal Seed Establishment, Southampton. Money prizes presented by the society.—First, Henry J. R. Digges, Esq., Duncairn, Eglinton Road; second, Lord Dunleath, Ballywater Park, County Down (gardener, Mr. E. H. Cole); third, Captain D. C. Palmer, Clonlost, Killinac (gardener, Mr. M. Forde).

Dahlias, show, stand of twenty-four blooms, not less than eighteen varieties. First prize, silver medal.—First, Messrs. Hugh Dickson, the Royal Nurseries, Belfast.

Dahlias, Cactus, stand of twenty-four blooms, not less than eighteen varieties. First prize, silver medal.—First, Messrs. William Watson, Clontarf Nurseries; second, Messrs. Alexander Dickson and Son, Newtownards; third, Messrs. Hugh Dickson.

Roses, stand of forty-eight blooms, not less than twenty-four varieties. First prize, silver medal.—First, Messrs. Alexander Dickson and Son; second, Messrs. Hugh Dickson; third, Messrs. M. McGredy and Sons.

Gladioli, stand of twenty-four spikes, each different. First prize, society's silver medal.—First, Messrs. Richard Hartland and Sons, the Lough Nurseries, Cork; second, Messrs. M. McGredy and Sons, the Nurseries, Portadown.

Stand of Grapes, six bunches, three varieties, two bunches of each. Merit to consist in size of berry, symmetry of bunch, and finish. First prize, society's silver medal.—First, the Marquis of Downshire, Hillsborough Castle, County Down (gardener, Mr. Thomas Bradshaw); second, Lord Ashtown (gardener, Mr. Andrew Porter); third, Lady Emily Bury, Charleville (gardener, Mr. Robert M'Keena).

Grapes, white (Muscat), two bunches.—First, the Marquis of Downshire; second, Lord Ashtown; third, W. H. Odium, Esq. (gardener, Mr. C. Pilgrim).

Grapes, white (any other variety), ditto.—First, Lady Emily Bury (gardener, Mr. Robert M'Keena); second, Mrs. Meade, St. Michael's, Ailesbury Road (gardener, Mr. J. Colgan); third, Mrs. R. Hamilton, Shanganagh Castle, Shankhill (gardener, Mr. Alexander Morton).

Grapes, black (Hamburg), ditto.—First, Mrs. Meade; second, the Marquis of Downshire; third, W. H. Odium, Esq.

Grapes, black (any other variety), ditto.—First, the Marquis of Downshire; second, Mrs. Meade; third, W. H. Odium, Esq.

Melon, green or white fleshed.—First, Lord Ashtown; second, Lady Frances Doyle (gardener, Mr. James Mitchell).

Collection of vegetables, twelve distinct kinds only, to be exhibited in trays or on staging 5 feet by 4 feet (for quantities see rules), with first prize, silver medal, presented by Messrs. Toogood and Sons, Royal Seed Establishment, Southampton; money prizes presented by the society.—First, Lord Ashtown; second, Captain C. C. Palmer (gardener, Mr. M. Forde); third, Mrs. Blacker (gardener, Mr. George Bogie).

Collection of vegetables, six distinct kinds only, to be exhibited in trays or on staging 3 feet by 3 feet (for quantities see rules), with first prize, bronze medal, presented by Messrs. Toogood and Sons, Royal Seed Establishment, Southampton; money prizes presented by the society.—First, Sir John Dillon, Bart. (gardener, Mr. William Campbell).

#### EXTRAS.

Botanic Gardens (gold medal), for a superb general collection of rare and beautiful Palms, Orchids, Pitcher Plants, Cannas Rice, &c.; also fine specimens of *Trichinium Manglii*.

C. Ramsay and Sons, the Royal Nurseries, Ball's Bridge (silver medal), a decorative group of Palms, Ferns, &c., enlivened by Cactus, Gladioli, Dahlias, Lilies, and Bell-flowers, fresh and well grown; also well-arranged floral wreaths, bouquets, &c.

Messrs. M. McGredy and Sons, the Nurseries, Portadown (silver medal), a brilliant collection of single and double tuberous-rooted Begonias, tastefully arranged with Maiden-hair, Asparagus, and lace-like Gypsophila, and also some fine stands of show Roses in good condition.



Miss Watson, Clontarf Nurseries (silver medal), a very notable exhibit of Hollyhocks, Cactus and Pompon Dahlias, and Carnations; the brilliancy of colour and the freshness of these shapely blooms were much admired.

Messrs. Hartland and Sons, Lough Nurseries, Cork (silver medal), an extensive exhibition of single and double tuberous Begonias, well staged. This group was made much more brilliant by zonal Pelargoniums, Gladioli, and blue Delphiniums, daintily arranged with Gypsophila.

Messrs. Drummond and Sons, Limited, Dawson Street, Dublin (silver medal), a very comprehensive collection of choice hardy plants, trees, shrubs, Sarracenias, &c.

#### NATIONAL SWEET PEA SOCIETY.

##### CLASSIFICATION OF VARIETIES.

For a considerable period the committee of this society has been of the opinion that it was desirable to formulate some scheme of classification, and at the recent most successful show this was demonstrated in a very forcible manner. It was apparent that the growers were not in harmony in regard to the colours of many varieties, while some which were staged in one special colour class were also represented in another which should have been totally dissimilar. It was obvious that some remedy for such an anomalous state of affairs was essential, and it was procurable only by an election of varieties which classified them under specified colours.

At a meeting of the executive committee held on July 29 it was resolved that classification papers be printed and distributed amongst members of the committee, as well as growers of repute, whether they were members of the society or not. It was clearly seen by the committee that the date of distribution was fully late, as many varieties were so far past their best that some of the colour and form characteristics were rapidly failing. The necessity for the work was, however, so very imperative that this disadvantage had, perforce, to be overlooked, and the committee relied upon the wide knowledge of those beautiful flowers, known to be possessed by the gentlemen who filled in the lists. Nor was this confidence misplaced. It was speedily found that there was a strong opinion in favour of the best varieties, and it was only when we came to unimportant and often variable varieties that any material divergence of opinion was manifest.

The committee is convinced that the varieties which occupy the first, second, and third places under the several colour headings—and to which the votes each received are attached—are the best of those in general cultivation. Several varieties, like Dorothy Eckford and Countess Spencer, would have received many more marks had they been known, and to this fact alone must be attributed the positions they occupy in the accompanying tables. The committee desires it to be fully understood that this is its first attempt at classification, and that it was made late in the season, in consequence of which it may be subject to expansion, and general improvement in future seasons. Many growers have asked for lists of the best twelve, twenty-four, and thirty-six varieties to be embodied in the schedule of next year's show, and these the committee will prepare in due course, though their necessity is reduced by the appended tables.

It will be observed that in each case a certain number of varieties are above and a certain number below the line; the latter are there placed either because they have been superseded by others above the line, or because they are not sufficiently well known for an authoritative opinion of their merits to be expressed. One or two sorts that were inserted in the election papers have been excluded because absolutely nothing was known about them. Growers are assured that any variety they consider misplaced this year will find its proper level in the classification of the Sweet Pea that, it is hoped, the National Sweet Pea Society will annually undertake.

As the annual meeting of the society will not be held until January there was a clearly expressed desire that the results of the work of the committee be published early so as to enable the seed merchants to include them in their catalogues in the form of recommendations to those who are, by their positions, proved to be of superior merit. The committee therefore request the co-operation of the gardening Press, which has done so much to further the interests of the society, to add to its kindness by giving publicity to this election.

##### CRIMSON.

27 Salopian. 24 Mars. 15 Firefly. Cardinal. Brilliant. Duchess of Edinburgh. Ignea. Invincible Scarlet and Invincible Carmine: For the purposes of this classification and for exhibition these two are considered synonymous.

##### ROSE AND CARMINE.

23 Prince of Wales. 20 Her Majesty. 18 Mrs. Dugdale. Royal Rose. Lord Kenyon. Lord Rosebery. Splendour. Colonel. Adonis. Fashion. Novelty. Ovid. Princess Beatrice. Eliza Eckford. Miss Hunt.

##### PINK.

24 Prima Donna. 23 Lovely. 19 The Hon. F. Bouverie. Countess of Lathom. Princess Beatrice. Countess Spencer. Katherine Tracey. Mrs. Gladstone. Peach Blossom. Royal Robe. Isa Eckford.

##### ORANGE SHADES.

21 Gorgeous. 20 Lady Mary Currie. 19 Miss Willmott. Chancellor. Countess of Powis. Oriental. Lady Penzance. Meteor. Orange Prince.

##### BLUSH.

21 Duchess of Sutherland. 14 Modesty. 9 Countess of Aberdeen. Sensation. Fairy Queen. Lemon Queen. California. Blushing Beauty.

##### PICOTEÉ EDOED.

18 Lottie Eckford. 14 Maid of Honour. 11 Golden Gate. Butterfly.

##### STRIPES AND FLAKES—RED AND ROSE.

25 America. 18 Aurora. 18 Mrs. Joseph Chamberlain. 13 Pink Friar.

Gaity. Coronet. Mikado. Queen of the Isles. Invincible Striped.

##### STRIPES AND FLAKES—PURPLE AND BLUE.

20 Princess of Wales. 19 Senator. 15 Grey Friar. Wawona.

Juanita. Midnight. Columbia. Purple Striped. Striped Celestial.

##### YELLOW AND BUFF SHADES.

25 Queen Victoria. 24 The Hon. Mrs. Kenyon. 21 Mrs. Eckford. Lady M. Ormsby-Gore. Primrose. Venus.

Golden Gleam. Gleam of Brockhampton.

##### BICOLORS.

19 Triumph. 17 Little Dorrit. 14 Blanche Ferry. Prince Edward of York. Countess of Shrewsbury. Jeannie Gordon. Duke of York. Earliest of All.

Lady Beaconsfield. Empress of India. Painted Lady. Apple Blossom. Bronze King. Lady Skelmersdale. Delight.

For the purposes of exhibition Blanche Ferry and Earliest of All are considered synonymous.

##### BLUE.

26 Navy Blue. 24 Countess Cadogan. 22 Captain of the Blues. Emily Eckford. Baden Powell.

Imperial Blue. Grand Blue. Mme. Carnot.

##### MAUVE.

17 Dorothy Tennant. 10 Admiration. 6 Fascination. Violet Queen. The Queen.

##### VIOLET AND PURPLE.

15 Duke of Westminster. 12 Duke of Sutherland. 11 Duke of Clarence.

Monarch. Indigo King. Purple Prince. Waverley. Black Purple.

##### MARONE AND BRONZE.

24 Othello. 23 Black Knight. 22 Stanley. Shahzada. Boreatton.

##### LAVENDER.

25 Lady Grisell Hamilton. 22 Countess of Radnor. 19 Lady Nina Balfour. New Countess.

Princess May. Celestial. Creole.

For the purposes of this classification and for exhibition Countess of Radnor and New Countess are considered synonymous.

##### WHITE.

27 Blanche Burpee. 26 Sadie Burpee. 24 Emily Henderson. Dorothy Eckford. Mont Blanc.

Mrs. Sankey. Queen of England. Alba magnifica. White. White Eagle.

FANCIES (THOSE WITH MORE THAN TWO DISTINCT SHADES). 6 Lottie Hutchins. 4 Stella Morse. 3 Coquette. Duchess of Westminster. Duchess of York. Gracie Greenwood. Mrs. Fitzgerald.

Dolly Varden. Ramona. Alice Eckford. Captain Clarke. Carmen Sylva. Etna. Rising Sun. Vesuvius. Crown Jewel. Emily Lynch.

##### MAGENTA.

7 George Gordon. 7 Captivation. 5 Calypso.

##### CERISE.

9 Coccinea.

The total number of growers whose ideas are embodied in these tables is twenty-seven. Other classification papers were received subsequent to the abstracts being made, but though these could not be included a glance through them proved that in all the main features they were confirmatory of the results already obtained.—*Horace J. Wright, Hon. Gen. Sec., 32, Dault Road, Wandsworth.*

#### PRESTON AND FULWOOD.

SEPTEMBER 3, 4, AND 5.

THROUGHOUT Lancashire the chief subject for comment for some time past has been the historic function known as the Preston Guild, and to show the importance of this gathering the Royal Lancashire Agricultural and the Preston Horticultural Society had arranged their exhibitions side by side in Moor Park during the Guild week. The Right Hon. the Earl of Derby, K.G., is the Guild Mayor and President of each society, and assisted by Lady Derby and family throughout the week showed the keenest interest in the various departments, and on the opening day Lady Derby presented the Guild medals to the successful exhibitors. Previous to the opening grave doubts were felt as to the safety of the tents, but by judicious management they remained intact, which was more than those of their neighbours in the Agricultural ground did.

##### PLANTS.

For a group of plants, 300 square feet, arranged for effect, Mr. W. Troughton had the premier lot with excellent specimens. There were *Adiantum* in variety, *Lilium lancifolium*, and *Francoa ramosa* in pyramids, showing to advantage. Other flowering plants included *Rondeletias*, *Begonias*, *Campanulas*, *Cannas*, &c. For a group of foliage plants, staged for effect, the same exhibitor secured the coveted award with well-grown *Palms*, *Ferns*, &c. For two Tree Ferns the leading award went to the same exhibitor.

For a group of 200 square feet, nurserymen excluded, Mrs. Calvert (gardener, Mr. W. Haynes) led with a well-arranged lot, *Adiantum*, *Palus*, and *Crotons* being freely used, the only flowering plant being *Lilium lancifolium* album; second, J. B. Dixon, Esq., with greater variety, but lacking in arrangement; third, E. K. Brown, Esq. (gardener, Mr. W. J. Weaving), with rather too flat a mass of greenery.

For three double *Pelargoniums*, H. Dewhurst, Esq. (gardener, Mr. G. Morgan), led; and for the tricolors J. B. Dixon, Esq., was the winner.

The first prize for six British Ferns was won by J. B. Dixon, Esq.; for three, J. Ashworth, Esq., took the lead;

and for the single, J. B. Dixon, Esq., scored again with a good *Osmunda*.

For six exotic Ferns, J. B. Dixon, Esq., was well to the fore, his *Adiantums* being very good; J. Hull, Esq., was second. For three varieties, Mrs. Calvert had the leading lot.

For a specimen Tree Fern, J. Hull, Esq., was first.

For a single *Palm*, J. B. Dixon, Esq., was well to the fore; second, Mrs. Calvert.

For six foliage and flowering plants, J. E. Dixon, Esq., was first with fresh plants; second, J. Hull, Esq. For three *Dracenas*, J. B. Dixon, Esq., again had the best.

For one Orchid, C. Parker, Esq., won with a good *Oncidium*.

##### FRUIT.

For two bunches of black Grapes, J. Revill, Esq. (gardener, Mr. R. Raynor), Fleetwood, was first with large bunches, but somewhat lacking in colour; second, J. Hull, Esq.

For two bunches of white Grapes, the Right Hon. Earl of Lathom (gardener, Mr. B. Ashton) won with good bunches; second, Mr. Chamb.

For a green-fleshed Melon, C. R. Brown, Esq. (gardener, Mr. J. W. Weaving), Preston, won with *Criogle Hybrid*, and for a scarlet-fleshed with Windsor Castle.

For three Tomato plants, H. Dewhurst, Esq. (gardener, Mr. G. Morgan), won with well-fruited plants; second, J. B. Dixon, Esq.

For a collection of fruit, six dishes, the Earl of Lathom (gardener, Mr. B. Ashton) had the premier lot with white and black Grapes, Peaches, Nectarines, Melons, and Figs.

For a collection, Mr. B. Ashton won with a good lot, including Peaches, Nectarines, Plums, Pears, Cherries, and Currants.

For six kitchen Apples, Mr. Thomas Guy won with Lord Suffield.

For three varieties of cooking Apples, Messrs. T. Guy and B. Ashton were placed as named.

For three varieties of dessert Pears, J. Smith, Esq., was the winner.

For six dessert Apples, Mr. B. Parker was successful.

For twelve Plums, James Garside, Esq., led.

For a dish of Cherries, Mr. B. Ashton won with a good lot.

##### CUT FLOWERS.

In the open class, Mr. W. N. Wood secured the chief award for a single bouquet, and for that of Roses the winners were Messrs. P. W. Heyes, W. N. Wood, and J. Morley.

For a table of cut flowers, Mr. W. Troughton had the best, *Lilium longifolium*, *L. lancifolium*, roseum and album, being very effective. Other good bunches were *Phloxes*, *Chrysanthemums*, *Gladioli*, *Dahlias*, *Sweet Peas*, &c.; second, Mr. T. R. Hayes, Keswick, including *Phloxes*, *Gladioli*, *Poppies*, *Lilies*, &c. The remaining prize went to Mr. P. W. Heyes.

Mr. W. Troughton secured the first award for twenty-four *Cactus Dahlias*, with bright blooms.

For six bunches of stove and greenhouse flowers, Mr. C. Parker won with choice Orchids.

##### VEGETABLES.

These were of high excellence throughout. Messrs. B. Ashton, W. Bailey, J. Smith, H. Dewhurst, R. Cook, B. Ashton, and W. Benson were most successful.

##### NON-COMPETITIVE.

Many exhibits of great interest were staged. These brightened up the show considerably.

Mr. H. Middlehurst had a fine display of Sweet Peas of good substance and colour and immense bulbs of *Lilium Harrisii* 15 inches in circumference.

Mr. W. Shand, Lancaster, contributed a fine display of cut flowers, *Lobelia Queen Victoria* being brilliant.

Mr. H. Bulmer, Blackburn, had cut Carnations.

Messrs. Little and Ballantyne, Carlisle, had a charming bank of herbaceous cut flowers, *Roses*, &c.

Mr. T. R. Hayes, Keswick, a very good display of hardy Heaths, well flowered and tastefully arranged.

Mr. Isaac Titterton, Preston, showed cut *Roses*, *Violas*, *Begonias*, and herbaceous cut flowers.

Mr. James Saul contributed plants in pots of *Pyrethrums*, *Phloxes*, *Pansies*, *Violas*, &c.

Mr. T. O. Walker showed a variety of rock and alpine plants.

A certificate of merit was awarded a new Heath, shown by Mr. T. R. Hayes.

Gold medal medals were awarded to those exhibitors who gained first points in the various sections. Nurserymen: Plants.—Mr. W. Troughton, large medal; Mr. H. Winwood, Ashton, small medal; Mr. W. N. Wood, large medal; Mr. W. Troughton, small medal for cut flowers. To gardeners: Plants.—J. B. Dixon, Esq., large medal; H. Dewhurst, Esq., small medal. Fruit.—Mr. B. Ashton. Cut Flowers.—Mr. R. Moss Preston. Vegetables.—Mr. B. Ashton.

Silver Banksian medal for the best exhibit in the show.—Mr. W. Troughton for his first prize group.

Mr. C. Parker received a certificate of merit for a new *Cypripedium Curtisii* ashtonense.

Mr. E. Payne carried out in a most satisfactory way the secretarial duties.

#### ROYAL HORTICULTURAL SOCIETY.

##### SCIENTIFIC COMMITTEE.

PRESENT: Dr. M. T. Masters (in the chair), Messrs. Gordon, Odell, Drury, Hooper, Saunders, Bowles, Worsley Dr. M. C. Cooke, Revs. W. Wilks, and G. Henslow, hon. sec.

*Lavender, improved.*—Mr. Wilks showed a spray of a new selected *Lavender*, having dark purple corollas and calyx. The scent was also stronger than that of the old form. He observed that the white *Lavender* was devoid of scent. Mr. Bowles observed that this new kind was somewhat like the dwarf form of *Lavender*.

*Galls.*—Mr. Odell showed specimens of various galls on the following plants: *Potterium sanguisorba*, galled by *Eriophyes sanguisorbae*; *Polygonum amphibium*, galled by



*Cecidomyia persicariae*: Oak, *Q. sessiliflora* and *Q. pedunculata*, galled by gall-wasp, *Aphidlothrix gemmae*; *Salix fragilis*, galled by *Nematus gallicola*; bud galls on *Campanula glomerata*.

*Abelia rupestris* (?) *phyllotaxis*.—He also showed three stems of this plant having opposite leaves, whorls of threes and whorls of four on separate shoots.

*Pyrethrum aureum* var. "*Staghorn*."—Mr. Drury exhibited a plant of this variety raised by Messrs. Storrie, Dundee. It is characterised by a distinct tasselling or cresting of the main and lateral apices, precisely as obtained so frequently in Ferns. This form of variation is extremely rare in phanerogams, the only instance known to the exhibitor being the crested form of *Asparagus plumosus*, in which case it is correlated with extremely Fern-like foliage. In the *Pyrethrum* shown the leaves are distinctly pinnate, with stipitate pinnæ precisely on Fern lines, as are the terminal. It is stated to be so far fixed that 80 per cent. of the seedlings are true after five years' cultivation.

*Malformations*.—Mr. Corderoy sent examples of Wheat-ear, Antirrhinum, in which no flowers were present, but short branches covered with minute green bracts occupied their position. A Briar which bore a yellow variegated stem, but the leaves upon it were entirely green, an unusual combination for which no reason could be assigned. *Lathyrus latifolius* with green flowers. These apparently had received some check, so that although nearly fully formed, the flowers dropped. The stamens had full sized anthers, which did not dehisce, the styles were arrested much below the anthers, and the stigmas were immature. As the flowers of Honey-suckle sometimes exhibit a similar appearance late in the season, it may be attributable to the late cold month of July.

*Silver-leaf disease*.—Mr. Worsley exhibited the grafted portion of the stem of a Peach or Plum showing the decayed condition of the centre. He observed that below the graft the dead part decreased by degrees downwards, till in the roots there was none. His impression was that the disease (sterium, according to Professor Perceval) proceeds upwards and downwards. The specimen was sent to Professor Perceval for further examination.

*Onions and caterpillars*.—Mr. J. Walker, Thame, sent some foliage, upon which Mr. McLachlan reports as follows: "The larva is that of some Noctuid moth, and probably of *Mamestra brassicae*, which will feed on nearly everything, from Oak to grass. At the present time hand-picking, where the plants are attacked, would perhaps be best, or a good spraying with some of the paraffin preparations. Earlier in the year—say two months earlier—repeated spraying with arsenical or paraffin preparations might save the young plants. At this season the attacks will probably not do very much harm, as the Onions will be well on towards maturity. One can hardly prevent the depositing of eggs, because the moths fly from a distance; the thing is to preserve the young plants by rendering the foliage distasteful by means of spraying as before mentioned. Even this is uncertain, because the larvæ may move on to the Onions from some other contiguous crop that may have been gathered, such as Cabbage, &c." Some doubts were expressed as to the desirability of using arsenical preparations, in case it might be absorbed by the Onions, when eaten in the early stage.

*Physianthus and moths*.—Mr. Henslow exhibited flowering sprays of this plant from Cape Town, in which nearly every flower had retained a grey moth, by the proboscis having caught between the anthers, which are fixed to the stigmatic head in *Asclepiads*. They either died from starvation or were picked off by bats, which are aware of their constant presence in these flowers.

*Pelargoniums with secondary tubers*.—In allusion to the illustration lately received of Lencoum, with secondary tubers below the first, Mr. Henslow showed specimens of small tuberous-rooted species from barren slopes of Table Mountain, in which similar secondary tubers were found below those from which the foliage and flowers proceeded. He suggested that they might be water reservoirs in this particular case, as the plants were in full flower in the dry season. Such tubers occur in plants (as species of *Erodium*) in the North African deserts.

*Phototropism*.—Mr. Henslow described an experiment to illustrate the effect of light in connexion with gravity, &c. Mustard seed was grown on a thin layer of cotton wool, kept moist, on a perforated tea-tray, suspended under an inverted flower-pot, raised upon a support so that the Mustard was illuminated only from below by means of a sheet of white paper. Gravity had no effect upon the germinating radicles. If any protruded through the holes they at once turned back, and with all the rest were entwined in the wet wool. Hydrotropism thus entirely superseded gravity. When the tin was suspended horizontally, the hypocotyls with the green cotyledons curved downwards; those on the circumference, being more strongly illuminated, curving more rapidly than the cluster in the middle. When the tin was suspended vertically, after two or three days all the seedlings curved downwards in the direction of both light and gravity, phototropism overcoming negative geotropism, or apogeotropism. These terms, of course, only describe the movements of the hypocotyls as "towards the light," or in "opposition to gravity," or "away from the earth." They are not "forces." The experiment suggested the possibility of different degrees of illumination being the primary influences in causing the upward growth of the stem and the downward growth of the root. It may be remembered that aerial roots of Ivy protrude on the less illuminated side, irrespective of gravity. So, too, the radicle of Mistletoe grows towards the bough on which the seed is fixed, so that as the direct light from the sky is greater than the reflected light from the soil, the shoot-end of a plant grows upwards and the root-end downwards. Gravity, however, is believed to act upon the root-tip, as Darwin and Dr. Francis Darwin explain, unless it be overcome by the presence of water, manure, &c. The stem, by growing upwards in opposition to gravity, puts out mechanical tissues to support itself under the influence of gravity, which always tends to pull it down, and has acquired a permanent tendency to rise, as shoots laid horizontally

will rear their tips perpendicularly if kept in total darkness. Similarly, it is presumably possible that the root-tip has become sensitive to gravity as a secondary effect. As far as the germination of spores can throw light upon primitive conditions, it has been found that the first cell-plate laid down the unicellular spore of Ferns and Equisetum is approximately in a plane at right angles to incident light, and that the most illumined half lays the foundation of the stem. Again, the dorsiventrality of the prothallium of a Fern, and the development of the rhizoids upon the under side, are determined by different degrees of illumination, and not by gravity.

#### DUTCH HORTICULTURAL AND BOTANICAL SOCIETY.

THE Floral Committee, at a meeting on August 20, awarded first-class certificates to Mr. T. E. Houtvester, Utrecht, for *Pelargonium zonale* Mr. H. Martinet, and to Mr. J. J. van Cruijnningen, Haarlem, for *Fuchsia Turst otto* von Vermeirde. Certificates of merit were given to Mr. J. Th. v. d. Berg, Zutphaas for a single *Dahlia* President Viger as a new plant. A botanical certificate was awarded to Mr. H. D. Willink von Callen, Bruckell, for *Lepidostemon pentstemonoides*, and to Mr. C. J. Kikkert, Haarlem, for *Epidendrum Mednea* as a rare plant.

#### NATIONAL DAHLIA SOCIETY.

SEPTEMBER 2.

FIRST-CLASS certificates were awarded to Cactus Dahlias: W. F. Balding, yellow centre, shading off to light chrome (Stredwick); F. A. Wellesley, rosy crimson (Shoesmith); Ianthe, base of petal buff, shading to rosy pink (Burrell); Mabel Needs, crimson, shaded carmine (Mortimer); Win-some, white (Green); Eva, pure white (Stredwick); Etna, lilac, suffused with buff (Stredwick); H. J. Jones, primrose centre, shading to rosy pink (Stredwick); Vesuvius, yellow ground, striped crimson (Stredwick).

Show Dahlias: Henry Clark, creamy white, edged deep lilac (Keynes); Pompon Elsa, white (Turner); Single Snow-drop, white, lemon ring in centre (Cheal).

#### SPECIAL AWARDS.

Silver medal for best bunch of Cactus Dahlias in trade classes: Messrs. Stredwick and Son for Miss F. Stredwick.

Silver medal for best bunch of Cactus Dahlias in amateur classes: Mr. P. W. Tulloch for Mrs. Mawley.

Bronze medal for best new show or fancy Dahlia: Messrs. Kevins, Williams and Co. for Henry Clark.

Williams Memorial Medal was awarded to Mr. L. McKenna for twelve bunches of Cactus Dahlias (amateurs).

Silver medals for single Dahlias were awarded to Messrs. J. Cheal and Sons, Mr. F. W. Seale, and Mr. J. F. Hudson.

#### NON-COMPETITIVE EXHIBITS.

Silver-gilt medals to Messrs. Cannell and to Hobbies, Limited.

Silver medal to Messrs. Cutbush and Sons.

Bronze medal to Messrs. Jones and Sons.

Vote of thanks to Messrs. Barr and Sons and to Messrs. Smith Bros.

**Grape Reine Olga.**—I am writing of this Grape under the above name, not being able to put my hand on the volume of the Royal Horticultural Society's Journal, where an interesting account of it appears, together with a faithful representation of a Vine and crop on Mr. Will Taylor's house at Hampton. Now that its adaptability for outdoor culture has been proved, and it is probable that many will be giving it a trial, I should like to note two points in connexion with its successful culture. It wants plenty of room—that is, individual shoots should be left further apart than is usually the practice with outdoor Vines; they should be stopped both in the case of shoots and laterals as with indoor Vines to allow the bunches plenty of light and air; also, as bunches invariably are very thickly set with berries, they require thinning. Dust with sulphur if any sign of mildew appears. —E. BURRELL.

**Early Chrysanthemums.**—The moist and sunless weather of the past summer has had the effect of causing many plants in the hardy flower garden to come into flower much later than usual, but the Chrysanthemums appear to be very good this year. The moist weather has promoted growth so much so, in fact, that quite a large number of what were smaller pieces than usual at the time of planting are now plants of large size. Strange though it may appear, some of the varieties are already flowering profusely, and in my own case much earlier than is usual. That ideal border variety, Mme. Marie Masse, is indeed a picture at the present time. The plants are a veritable mass of blossom, and there are plenty of side shoots to keep up a continuous display for quite a long time to come. The catalogue description of its colour—lilac-mauve—is hardly correct, it is a far more pleasing shade than that. The habit of this plant is branching and sturdy; the height rarely exceeds 2½ feet.

Horace Martin, last season's lovely yellow sport from *Crimson Marie Masse*, is going to revolutionise the market culture of yellow early Chrysanthemums. I have a large batch of the yellow sport growing side by side with the chestnut crimson-coloured parent, and the two sorts make a most effective contrast. Just now the colour of *Crimson Marie Masse* is particularly rich and striking, and those who have previously complained of the descriptive name of this variety being a misnomer would at the moment have to recall their words.

As the flowers age they become paler, until in the end they pass to a good bronze. Quite one of the prettiest sports is Rabbie Burns. This is a sport of which comparatively little is known, yet it is a pleasing flower. It is catalogued as a salmon-pink colour, but there is a shade of cerise in the flowers, and as a whole the flower is very distinct. The creamy-white blooms of Ralph Curtis represent another sport, and of the five sorts here described the last-named appears to be the most vigorous. The flowers of Mme. Marie Masse and its sports are developed on a splendid length of flower-stalk, so that each one may be used for cut flower purposes without disbudding. A pretty free-flowering Pompon in flower at the time of writing is Mme. Ed. Lefort. The colour is old gold and crimson, and the florets are fimbriated. —D. B. CRANE.

**A gale in Scotland.**—A gale of unusual severity was experienced in Scotland on the 3rd inst., a velocity of seventy-three miles an hour having been registered. The wind rose with startling rapidity, and little could be done to save anything exposed to its force. Chrysanthemums, Dahlias, pot Strawberries, and Hollyhocks have been greatly damaged. In flower gardens exposed to the south, whence the first intermitting gusts of the wind came, Geraniums, Antirrhinums, and other plants were snapped off and carried away. Among vegetables Peas have suffered most, the haulm being twisted in every conceivable way and torn from supports. Cauliflowers and Broccolis also have been much damaged. Of fruit the Apple crop has suffered most severely, all kinds, early and late, being blown to the ground. It may be possible to save the best of such sorts as Warner's King and Mère de Méoage, but King of the Pippins and others of that class are still so small as to be worthless. Trees have greatly suffered, large-leaved kinds such as the Sycamore and the Walnut having lost the greater part of their foliage. In many cases the foliage is quite browned. This is the third gale that has passed over the country since June, and by far the worst. —R. P. B.

**Chirita sinensis.**—This pretty Gesneriad is at the present time flowering freely in the Begonia house at Kew, where it shows to advantage among surrounding plants. It is an old inhabitant of our gardens, having been introduced by the Royal Horticultural Society's collector, Mr. Fortune, in 1844, from China. Although the flowers are very pretty they are not the only attraction the plant possesses, for the thick, fleshy, hairy leaves are prettily marbled and veined with grey. The flowers are borne twenty or so together in panicles on stems 9 inches high. In colour they are lilac with two yellow lines in the throat and two reddish brown blotches on the inner side of the topmost petal. The flowers are of good size, being about 1½ inches long and over half an inch through. It succeeds in a warm greenhouse, but thrives better if a little more heat can be given during the early stages of its life. Propagation is by leaf cuttings. If the leaves are laid on Coconut fibre and the veins cut through in several places a plant will spring from every cut. Light soil should always be used for potting. —W. DALLMORE.

**Lobelia cardinalis hybrida.**—Where this is wanted to be grown in a dry or sunny position, the following is a good plan: Sink a 12-inch pot in the ground, make it water-tight with clay, fill it up with rubble, rough earth, and water. Then plant three *Lobelia* plants round the edge, but above, not in the pot. They soon root into the moist earth. Treated in this way some plants from seeds sown last year are now wonderfully strong, some being 4 feet 6 inches in height instead of only 2 feet. —WINIFRED SPURLING.



# THE GARDEN

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[SEPTEMBER 20, 1902.]

## BULB GROWING IN ENGLAND.

AN INCREASING INDUSTRY.

FOR many years Holland has so enjoyed the monopoly in the production of Hyacinths, Daffodils, Tulips, &c., that the whole class is known as Dutch bulbs, but this name is somewhat misleading. As long ago as 1856 Charles Turner, of Slough, published a catalogue of about 200 varieties of Tulips which he grew and tested for twelve years. For many years a grower at Norwich received first prize from English-grown bulbs at the Norwich Horticultural show for Daffodils in the open class.

There was a time when Lily of the Valley crowns were all imported, but now they are grown by the acre near the King's home at Sandringham. Spalding, Wisbeach, Holbeach, and Ditton now produce tons of Narcissi bulbs of all varieties, but it was not till quite recently that the culture of Hyacinths in England became a success.

Hyacinths have been cultivated for over a century, but they all seem to have been imported, at any rate we cannot hear of the successful propagation and raising of Hyacinths anywhere except at Terrington St. Clement, Norfolk. As the bulb contains an embryo flower, it is necessary that the soil in which the cultivation of bulbs is attempted be of the right chemical and mechanical constituency. The soil of Holland consists principally of sand of a saline character. Much labour is expended in applying suitable manure to it for bulb growing. Terrington St. Clement (Mr. W. J. Belderson's) is situated in the marshland district, a rich fertile tract, which it is said the Romans gained from the sea. The Saxons were so attracted by the extraordinary fertility of the soil that they remained there in force. The survey taken by the Norman Conqueror shows that the present towns were in existence in the days of Edward the Confessor.

It is now secured from the ravages of the sea by artificial banks, the inner rampart being attributed to the Romans. Some writers are of opinion that this tract of the Isle of Ely was originally firm and dry land. Strong evidence in support of this idea is the great number of trees found below the surface which do not grow in marshy districts, their roots standing in the firm earth below the alluvial soil. On cutting the channel called Dounham Ean Furze bushes were found

17 feet below the surface, also Nut trees pressed down flat, with Nuts firm and sound near them. The alluvial soil is one of the richest tracts our country possesses, and capable of producing almost any crop that agriculturists or horticulturists can desire.

Several times the whole country has been flooded. On September 1, 1613, the sea overflowed all marshland. In March of the next year it was covered with fresh water, and again on September 13 and 14, 1671, all marshland was flooded by the violence of the sea. Such is a brief description of the formation of the soil of the district that is now producing Hyacinths as well as other bulbs equal to and in some cases better than imported ones. The Dutch soil is wanting in humus and needs much addition of manure to grow good bulbs. This is not required by the marshland soil.

The propagation of the Hyacinth is effected by hybridising to obtain new varieties, and by offsets for perpetuating older or distinct kinds. Some sorts, such as General Pelisier, produce a large number of offsets, others are shy in this respect. To rapidly produce bulblets cultivators scoop out the bottom of full sized bulbs as soon as they are lifted in July; these are dipped in sand and then laid on a shelf in a warm and dry greenhouse. In a short time a number of bulblets appear between the leaves of the parent bulb. In the autumn these are planted, and when dug up the next year the old bulb consists of a few withered leaves with a quantity (from twenty to forty or fifty) of bulblets, ranging from the size of a Broad Bean to bulbs so minute that they can scarcely be handled. These are sorted from the soil and planted again in September or October. The second year a few small flowers are produced, allowing the careful cultivator to rectify any mistakes in naming which may have taken place in the drying sheds. The after culture consists of planting and taking up annually until a saleable bulb is produced capable of bearing such flowers as they did last year when blooms from Terrington bulbs beat all competitors at a Yarmouth school competition. There is no reason why we should buy Dutch bulbs from Holland when we can support British industry by purchasing English grown ones, and it will be an advantage to the producer of the flowers, as he can get bulbs free from disease and under fair conditions capable of bearing grand flowers.

Of course the Hyacinth culture in England is quite in its infancy, still those who last year purchased bulbs are pleased, as the stock of

"number ones" is being rapidly reduced. The primary object of Hyacinth culture in England is, of course, the production of bulbs, but in the interval a quantity of flowers are borne which are disposed of in provincial markets. Marshland is famous for its flowers. It has been said that the best blooms coming into Covent Garden market are grown at Terrington. Certain it is that Narcissi, Tulips, and Snowdrops generally command the highest market price. Narcissi are grown by the acre. These are generally plucked before properly expanded, placed in a warm house in troughs of water, and forced open by keeping the house or shed to a high temperature. This method prevents damage to the flowers in plucking, as being undeveloped they are not easily bruised, and also ensures the cleanliness of the flower. Often the blooms are plucked several days before going to market. If the public were wise they would purchase in the immature state. Tulips are forced by the acre in the open ground.

The greenhouses used to cover them are constructed by movable lights 6 feet by 4 feet, laid on rafters and bolted down. As many spans are erected as required in one batch. Independent hot-water boilers with screened wrought iron pipes are used to maintain a good heat, and in a few weeks a mass of flower fills the house. As soon as these are cut the houses are moved over another batch of Tulips. Snowdrops are an important bulbous crop in this locality, the flowers are good, and the bulbs are often sold at a higher price wholesale than best Dutch bulbs are making retail.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

BEGONIA ANGULARIS, Clematis meyeniana, Clanthus Dampieri and varieties, Gardenia Rothmannia, G. Thunbergia, Hedychium gardnerianum, Lilium sulphureum, Lisianthus russellianus, and Melocactus communis.

### Palm House.

Faradaya splendida and Ixoras in variety.

### Succulent House.

Sansevieria æthiopica.

### † Range.

Æschynanthus grandiflora, Amsonia calycina, Begonia (various species), Gladiolus natalensis, Hemanthus coccineus, Hippeastrum Bagnoldi var. gillesiana, and Senecio (Kleinia) Galpini.

### Greenhouse.

Angelonia salicariæfolia, Begonia coccinea, Campanula isophylla var. Mayi, C. Loreyi, Cuphea micropetala, Datura fastuosa varieties, Hidaigoa Wercklei, Lantana salvifolia, Liriope spicata, Nierembergia filicaulis, Solanum integrifolia var. inermis, and S. Melongena in fruit.



*Rock Garden.*

*Calceolaria mexicana*, *Chelone Lyoni*, *Corydalis thalictrifolia*, *Habenaria ciliaris*, *Lobelia sessilifolia*, and *Satureia montana*.

*Herbaceous Plants.*

*Argemone grandiflora*, *Aster* (various species), *Convolvulus Cantabrica*, *C. tenuissimus*, *C. mauritanicus*, *Coreopsis* (various), *Dahlia coccinea*, *D. variabile* and others, *Hollyhock* *J. Bennett-Poë*, *Kniphofia* (various species and varieties), *Mirabilis jalapa*, *Gerbera punicea*, *Polygoum* (various), *Rudbeckia* (various), *Sunflowers* (various), *Veronica exaltata*, *V. spicata*, and *Venidium Krausii*.

*Orchid House Wall.*

*Abutilon megapotamicum* and *Capparis spinosa*.

*Shrubs in Arboretum.*

*Arbutus Unedo*, *Calluna vulgaris* and varieties, *Clematis* (various), *Clerodendron trichotomum*, *Clethra acuminata*, *C. alnifolia*, *C. alnifolia* var. *tomentosa*, *Hypericum* (various), *Lonicera japonica* var. *halleana*, and *Rhododendron ferrugineum* var. *myrtifolium*.

## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

September 22.—Meeting of the Floral and Executive Committees of the National Chrysanthemum Society.

September 23.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster; committee meeting of National Dahlia Society.

October 7.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster; National Chrysanthemum Society's Show, Royal Aquarium (three days); National Chrysanthemum Society, meeting of Floral Committee; meeting of Scottish Horticultural Association.

October 20.—Meetings of National Chrysanthemum Society's Floral and Executive Committees.

October 21.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster.

October 28.—Croydon Chrysanthemum Show (two days).

October 29.—Kent County Chrysanthemum Show at Lewisham (two days); Highgate Chrysanthemum Show (three days).

**Articles on bulbs.**—The following articles have been crowded out of the present number, but will appear later: The Alderborough Anemones, The Tulips, and Dwarf Bulbous Irises.

**Great Fruit Show at the Crystal Palace.**—A full report of this show, held on Thursday under the auspices of the Royal Horticultural Society at the Crystal Palace, will appear next week.

**Poor Potato crops.**—Not for many years have the prospects of Potato growers been so bad as this year; in many districts not more than half the usual quantity of tubers will be gathered. Except in the North the Potato disease has been, and continues to be, very prevalent, and if the present wet weather continues the prospects of an improvement are not bright.

**Terrible storm in Kent.**—A storm of great severity passed over the Maidstone district last week, and wrought terrible havoc amongst the Hops. In many cases the fruit crops are entirely ruined. Even hard Pears were cut by the hailstones, all trees were stripped of their foliage, and Potato and root crops washed out of the ground. Colonel Warde, the member for the Medway Division, who resides at Barham Court, Teston, suffered severely. No fewer than 1,650 panes of glass in his greenhouses were smashed, and nearly all his outdoor fruit stripped from the trees. The leaves were stripped from 2,000 Chrysanthemum plants standing out of doors. Colonel Warde's gardener is Mr. G. Woodward, the most skilful fruit grower probably in Kent, who is generally the most successful prizetaker at the annual fruit show held at the Crystal Palace. Another property owner at Teston has lost 6,000 Peaches and nearly 400 bushels of Apples and

other fruit. At Watlingbury a brewer has very little left of his sixty acres of Hops, which were regarded as among the finest in the country. Messrs. Bunyard and Co., Royal Nurseries, Maidstone, write: "In view of the disastrous storm that has passed over this district and ruined the fruit prospects of so many growers, we should be glad if you would state that our nurseries entirely escaped the hail, though 1½ inches of rain fell in one hour."

**Notes from Baden-Baden.**—Whether it is from the changes in temperature or from natural causes, *Silene Hookeri* has entirely changed its beautiful delicate flesh colour—as figured in the *Botanical Magazine*—to a beautiful deep rose. It is a plant for the alpine house, but well worth any care bestowed on it. The roots do well for several years, and the singular shaped flowers attract attention at once. There is a small but very bright and deep-coloured yellow *Clematis* from Tibet, which looks very promising; it must, of course, be seen after a year or two when in full perfection to judge exactly as to its merits. *Lilium Brownii* var. *leucanthum* is a very striking plant; it is perfectly hardy and very easy to grow. The bell-shaped very large flowers are white, with a yellow inside, and exhale a strong perfume. *Clematis paniculata* has small, sweet-scented white flowers, but their small size is compensated for by their abundance: it is a very ornamental plant. Another *Clematis* from Tibet looks very promising, even small plants (seedlings of spring) have half-a-dozen brilliant deep yellow flowers, which contrast well with the blackish green foliage.—MAX LEICHTLIN, *Baden-Baden*.

**Mersina and Messina.**—A correction.—Mr. A. F. Christmann, Mersina, Asia Minor, writes: "I notice in THE GARDEN of May 3, page 288, that you mention that Mr. W. Liehe's address is Messina. This is an error. Messina is in Sicily, whilst Mr. Liehe is at Mersina, a small town on the south-western coast of Asia Minor (Adana Vilajit)."

**Fruit growing in California.**—Mr. Charles Howard Shinn, Inspector of Experiment Stations in California, has sent an interesting pamphlet about fruit tree experiments at or near the southern coast range station. It is freely illustrated, and fruit growers here can get many useful hints from these records of carefully conducted experiments.

**National Dahlia Society.**—A committee meeting will be held at the Drill Hall, Buckingham Gate, Westminster, S.W., on Tuesday next, at 12.45 p.m., for the purpose of awarding certificates to seedling Dahlias. Entries will be received by the hon. secretary at the Drill Hall, before 11.30 a.m., on the morning of the meeting. The committee will meet again (by kind permission of the Horticultural Club) in the club room at the Hotel Windsor, Victoria Street, S.W., on the same date, at 4 p.m. Agenda for second meeting: Exhibition arrangements (1903); other business.—J. F. HUDSON, *Hon. Sec.*

**Mr. Joseph Cheal**, who has recently returned from a trip to America and Canada, in speaking of the latter country to a representative of the *Sussex and Surrey Courier*, said his impression was most favourable. "There are on all sides evidence of prosperity and progress. I had thought the long cold winter almost an insuperable barrier, but the Canadians assure me it is not so bad as we imagine. Though the frosts are very severe, the wood of the fruit trees is so well ripened that it escapes uninjured, and the air is so dry as not to be unpleasant to human beings."

**University College, Reading.**—The next session will commence on Thursday, October 2. The horticultural course extends over forty weeks, thirty weeks of the ordinary college session and ten additional weeks. By this arrangement students need not remain away from the garden for any length of time. The courses of study in horticulture are arranged to meet the special needs of students preparing for the certificate granted by the Oxford and Reading joint committee, the examinations of the Royal Horticultural Society, County Council instructors

in horticulture, &c. Mr. William H. Patterson, late of Swanley Horticultural College, Kent, is the lecturer on horticulture. The college garden for practical work is situated in the London Road, Reading, and has been placed at the disposal of the college by the kindness of Mr. Alfred Palmer, J.P., of Wokefield Park, Berks.

**A cottage show at Warley.**—A most successful cottage flower show was held on the 4th inst. for the parishes of Great and Little Warley, at Warley Place, through the kindness of the president, Miss Willmott. This is the fourth year of this annual show, and showed an advance in interest and enthusiasm on the previous years. The schedule was a very full one, containing ninety classes, none of which lacked competitors; in fact, so keen was the competition in some classes that extra prizes had to be given. As many as ten, eleven, and fourteen entries were entered in some classes. The vegetables of the cottagers were of a very high order of excellence, and called forth the praises of the judges, Messrs. Walker, Douglas, Page, and Foster. In a spacious marquee provided by Miss Willmott was arranged in the centre a fine group of Lilies, Palms, and various other flowering and foliage plants, and on tables round the sides was staged a very fine collection of fruit and another of vegetables from the gardens of Warley Place. These three items were arranged under the superintendence of Mr. Preece, the gardener. In another part of the marquee and forming a fitting setting to the prizes in kind, was a very handsome bank of Dahlias and coloured foliage arranged by Mrs. Berkeley. The rest of the space round was crowded with the exhibits of vegetables and fruit of the cottagers and amateurs. Two other smaller tents were provided, and contained the floral exhibits in the way of cut flowers, pot plants, and collections of wild flowers and wild fruits. These also contained the handicraft exhibits of carpentry and ironwork, and housewifery exhibits. Mr. Russell, the nurseryman, filled one end of one of the tents with a fine group of ornamental hardy shrubs, and Mr. Leonard Brown occupied a good space in one for an exhibit of spikes of Gladioli. There were three decorated dinner tables for competition. A fourth table was also decorated by Mrs. Green, of Harold Wood. The chief prize given by the president for a collection of vegetables, flowers, and fruit, and consisting of a piece of silver plate, was well won by Mr. Allen, Mr. Wallis being second, the second prize being 20s. The first prize for the best cultivated garden (prizes by the president) was won by Mr. Allen. Mr. J. Hanch was first for the best cultivated allotment (prizes by Colonel Whittington), Mr. Wallis was first for the prettiest garden (prizes by Mr. W. Robinson), and Mrs. Felton was first for the prettiest window (prizes by the president). In the class for a collection of vegetables for cottagers there were eight entries—first, Mr. Shepherd; second, Mr. Shelley; third, Corporal Dunn; extra prize, Mr. F. C. Cook. During the afternoon various sports were held—walking the greasy pole, chasing the pig, slow bicycle race, jockey race, donkey race, and others of a more or less amusing character. The band of the Essex Regiment was in attendance and added much to the afternoon's pleasure. The famous gardens of Warley Place were also at liberty to be viewed by all visitors to the show, this great treat and privilege having been most graciously accorded by Miss Willmott, than whom there is no more interested worker in the improvement of the gardens of the cottagers in the two parishes. The weather was perfect, and so the visitors proved numerous, many coming from a distance and from Brentwood and around. Thus everything conspired to make the show a success, and to encourage the president, committee, and the secretary (Colonel Whittington) to persevere in their efforts for the improvement of the gardens round and about them. It is not, however, all parishes that are blessed with such a real lover of gardening as Miss Willmott.—*Contributed*. [We are very pleased to notice so interesting an exhibition. Such exhibitions have a great influence for good in the villages and small towns, as we mentioned in our leader of last week.—*Ed.*]



**Astilbe chinensis var. Davidii.**—Very few plants indeed—certainly none of the numerous array of hardy subjects gathered together at the Drill Hall on the 5th ult., and described in *THE GARDEN*, page 104—attracted anything like so much attention as this remarkable plant when exhibited by the Messrs. Veitch. Many times the fine example was referred to as the “best new plant for many a day,” and when to this we may add the word “hardy” with the fullest confidence, we have in the above not merely a first-rate novelty, but one that will create in the open garden a feature undreamt of hitherto. In its praise we can hardly say enough. Its vigour, its free flowering, and its adaptability to the peculiarities of the British climate were all seen at a glance in the fine plant shown on the occasion. Hitherto its colour in the hardy plant garden has been quite rare, and indeed in this respect is only approached by one small group, viz., the Willow Herbs or Lythrum, but these do not impress one with their importance, and the foliage in particular is not interesting. The advent, therefore, of this fine Astilbe is all the more welcome. Free in growth, and not slow in any extreme degree, it should not be long, even though the plant may not come true from seeds, before a fairly good stock is obtainable, and additional importations may also be expected. In any case, so good and distinct a subject will not want admirers. What a fine effect a bed would make set out upon the lawn, where depth and quality of soil was assured, or again at no great distance from the water the effect would also be good. If one may venture to criticise so good a plant, it is to say that the apparently natural close gathering of the erect inflorescences is not for good—a wider spread of these would have been infinitely more telling. Doubtless to this the well-known reply will be promptly forthcoming that “every good quality is not possible in the individual subject, and the plant is good enough as it is.” With which I heartily agree. The plant is an acquisition.—E. JENKINS.

**Exochorda Alberti.**—The best known species of *Exochorda* is that figured on page 161 of *THE GARDEN*, viz., *grandiflora*, which merits every word that has been said in its favour as a delightful spring flowering shrub. There is, however, a second species (*E. Alberti*), which, though perhaps not quite equal to the other, is a decidedly pretty flowering shrub. It was discovered in Turkestan nearly twenty years ago by M. Albert Regel, son of the last Dr. Regel of St. Petersburg Botanic Garden, where it was first of all sent, and gradually made its way into cultivation. On April 14, 1894, *Exochorda Alberti* received an award of merit from the Royal Horticultural Society. The main points of difference between the two species from a garden point of view is that *E. Alberti* forms a more erect shrub of sturdier and denser growth and of more regular outline, while the flowers are somewhat smaller and closer arranged than in those of *E. grandiflora*. Added to this the flower racemes of *E. Alberti* are more erect than those of the other. Being robust in growth it may prove of value for planting where the more delicate *E. grandiflora* does not thrive.—T. [Our experience is that *E. Alberti* does not flower so freely as *E. grandiflora*.—ED.]

**Olearia Haastii.**—While opinions may differ regarding the question as to which is the finest of all the *Olearias*, I do not think there can be much doubt about which is the best and most generally useful of the hardy species. This position one would claim with some confidence for *O. Haastii*, which has also the merit of flowering at a season when shrubs are scarce, and it is thus even more appreciated than if it flowered at a time when other hard-wooded plants were plentiful. Its leaves, glossy above and white beneath, are also pretty. Then when at its best it is charming with its masses of white flowers, which almost cover the whole bush. Unfortunately, it suffers soon from rain, and its flowers get a dingy white. Yet one can appreciate that purity when it is with us, and in dry weather it remains some time perfect. The best bush I have

here is one which is grown on a dry rock garden facing south-west. It is kept down to some extent by cutting back, but this season it is some 6 feet high and about 5 feet through. It has been a little later than usual, and was only at its best at the end of August and the beginning of September. *O. Haastii* is easily propagated by means of cuttings.—S. ARNOTT, *Carsethorn, by Dumfries, N.B.*

**Rose Longworth Rambler and the season.**—For some years I have found this one of the best of my pillar and climbing Roses, as it has hardly ever failed to bloom both profusely and for a long period during the season. This year, however, it has been less satisfactory than usual, and I cannot account for this except on the assumption that the season has not been suitable for it. Unfortunately, it is a Rose little grown in this district, and I have thus had few opportunities of observing its behaviour for myself elsewhere. The enquiries I have been able to make, however, have led me to believe that my experience is not singular, but I should be glad to hear how it has done this season with others. It is now finer than it has been this year before, the warmer weather at the end of August having suited it. On the other hand, *Mme. Isaac Pereire*, which is usually a poor early season Rose on a light soil, but which makes up for this in autumn, has been better early in the summer than I have ever seen it before in my garden. These notes of observation will help us in allotting such Roses to the position in which they will flower best in average years.—S. ARNOTT, *Rosedene, Carsethorn, N.B.*

**Gomphia Theophrasta at Kew.**—Although the genus *Gomphia* is a large one and contains many species which from descriptions must be very interesting, very few are in cultivation, and those are rarely found outside botanical collections. At the present time the species under notice is in flower in the Palm house at Kew, and is decidedly showy. It is found wild in Mexico, where it is said to make a large bush or small tree, and was first introduced into European gardens by Mr. Linden. At Kew the specimen in flower is about 8 feet high, with a straight stem crowned with a large head of dark green leathery leaves with undulated and serrated margins. In point of size the largest measures 2½ feet to 3 feet in length and 6 inches to 7 inches in width, the petioles being reduced to a very short, thick stalk 1 inch long. The flowers are yellow and three-quarters of an inch across, and are borne in large terminal panicles 1 foot or so high and wide. It thrives under the same treatment as the ordinary stove plant, and is worth obtaining by those who prefer a collection of rare and interesting plants rather than large quantities of commoner things which are to be found in almost every garden.—W. DALLIMORE.

**How to get good herbaceous Phloxes.**—In the recent notes on the above perennials one method of planting is omitted that I have always found very satisfactory for large beds, viz., grouping of the different sections. The massing of certain colours of one particular section makes a very fine display for a time, but at its best affords but a short season, and if the beds are in a prominent position they are practically flowerless for the greater part of the year, unless other things are plunged amongst the Phlox. Given large beds, anything say over 15 feet in diameter, I like to have bold alternate clumps of both the suffruticosa and accusata sections, and carpet all intervening spaces with subulata and its varieties. By this means the beds are bright for four months beginning in June, and in spring the glorious carpet of colour afforded by the alpine section shows in admirable contrast against the young growths of the taller members of the family. Deep tilth, good holding manure, and a heavy surface mulching are absolutely essential for success with all the suffruticosa class. If intending planters do not know the different varieties it is well to get a little information as to heights and colours so that the grouping may be effective. Also, if time permits, I should strongly recommend the removal of decaying pips. These pips are so thickly set on

the trusses of bloom that those towards the base or rather towards the exterior of the truss are not able to push out and develop unless their fellows in front of them that have served their purpose are removed. Naturally, the opportunity given for a second lot of flowers means a much longer display.—E. BURRELL.

## CARPETING PLANTS FOR BULBS.

MANY of our brightest and best spring flowering plants are bulbous, and make scarcely any foliage until March, the ground is therefore bare all the winter if they are planted alone. To remedy this defect I always use some dwarf-growing plant as a carpet in the beds where Tulips, Hyacinths, and such like plants are grown; this gives a greater variety of colour, and some beautiful combinations may be formed. For instance, Tulip *Chrysolora* (which is the best of the golden yellow kinds) rises out of a mass of blue *Aubrietia*; the double form of *Arabis alpina* (which has quickly become a general favourite) forms a snow-white carpeting for Tulip *Couleur Cardinal*, whose rich purplish red tints of stem and flower show to advantage when thus associated; white Hyacinths look well on a groundwork of *Myosotis dissitiflora*, especially if the variety *Dyræ* is grown, as this has much larger flowers than the type; pink and red Hyacinths may be planted among single white *Arabis*, if a good dwarf form of the latter plant is selected; *Scilla sibirica* also looks well among white *Arabis*, and both flower well together. A good strain of yellow *Polyanthus* makes a suitable groundwork for Tulip *Duchesse de Parme*, or for Hyacinth *La Perouse*; but arrangements may be multiplied indefinitely according to individual tastes, and the above are merely given as illustrations. Some of the dwarf Wallflowers are occasionally used in this way, and do well if the planter remembers that they increase during the winter, and must consequently be planted very thinly or the Tulips will be smothered.

Narcissi are not used here for spring bedding in the ordinary sense of the term, as they require planting early in September before the summer occupants of the beds are removed, they are therefore grown in other places where they need not be disturbed, and where bare ground is not so objectionable; they may, however, be carpeted over, although for the benefit of the bulbs I would advise the removal of the carpeting plants as soon as they have flowered. *N. Golden Spur* or any of the deep yellows may be mixed with *Erica carnea*; *N. Duchess of Westminster* may have a carpeting of double pink Daisy; *N. Empress* may have a groundwork of double red Daisy; *N. Grandee* (bicolor *grandis*) would flower in time for blue *Aubrietia*; *N. poeticus* and *Aubrietia Leichtlinii* would come in well together; and any green carpeting plant such as *Saxifraga hypnoides*, *S. Camposii*, *S. muscoides atropurpurea*, *S. Rhœi*, *Phlox amœna*, and various others may, of course, be used with any of them. The flowers of the Narcissi stand out individually when the bulbs are planted about 9 inches apart, and the carpeting plants effectually hide the bare appearance of the beds. With Narcissi the order of planting must be reversed; it is not safe to move *Aubrietias* and several other plants of this class until after the middle of October; the Narcissi must therefore go into the ground first, and their positions be marked with a peg so as to avoid disturbing them afterwards.

Beds of Tulips, Hyacinths, Scillas, &c., generally have the carpeting plants put in



first; the bulbs are then put in between them on a dry day about 15 inches or 18 inches apart. The planter uses a blunt dibber, 1½ inches in diameter, with a hole bored through it 6 inches from the bottom to admit of a cross peg, and thus ensure the bulbs being placed at a uniform depth; the soil is filled in firmly with the end of the dibber and no further attention is needed until the plants flower.

The above notes are given in the hope that they may encourage others to commence growing spring flowering hardy plants. The following short lists of plants suitable may also be found useful.

#### PLANTS FOR CARPETING.

*Aubrietia deltoidea*, selected blue, *A. d. Hendersonii*, *A. d. Leichtlinii*, *A. d. variegata*, *Arabis albida flore-pleno*, *A. alpina*, Daisy double pink, double red, and double white, *Erica carnea*, Golden Feather (*Pyrethrum*), *Heuchera hispida* (Richardsoni), *Myosotis dissitiflora*, *M. d. Dyeræ*, *M. d. alba*, *Phlox amœna*, *P. divaricata*, *P. Newry Seedling*, *Polyanthus* white, *P. Wilson's* blue, *P. yellow*, *Saxifraga Campsosi*, *S. hypnoides*, *S. muscoides atropurpurea*, *S. Rhœi*, *Violas* Blue King, Bullion, Cliveden Purple, Croft House White, Duchess of Sutherland, Robinson's Standard, Skylark, and *Waldsteinia trifolia*.

#### BULBS FOR SPRING BEDS.

Hyacinths White LaGrandesse, Grand Vainqueur, Gigantea (blush), Robert Steiger, Charles Dickens, Norma, and Macaulay (red), Grand Lilas, La Perouse, and Czar Peter (blue), Tulips (single) Chrysolora, Cottage Maid, Couleur Cardinal, Duchesse de Parma, Elegans, Keizer Kroon, Golden Crown, Picotee, Pottebakker (white), Proserpine, Royal Standard (striped), Retroflexa, Stanley, Vermilion Brilliant, White Swan (Messrs. Pearson), and Wouverman, Tulips (double) Le Candeur, Murillo, Rubra maxima, and Tournesol. Narcissus Ard Righ, bicolor Empress, bicolor grandee, bicolor J. B. M. Camm, Emperor, Glory of Leiden, Spur, Henry Irving, nanus, obvallaris, Golden P. R. Barr, Incomparabilis Beauty, I. Sir Watkin, I. Queen Bess, Leedsii Duchess of Westminster, L. amabilis, Barri conspicuus, and Poeticus ornatus. W. H. DIVERS.

Belvoir Castle Gardens, Grantham.

### THE WALL GARDEN IN SEPTEMBER.

THOUGH summer is over and hardy flowers are becoming scarce, there are numerous instances in rock gardens as well as in wall gardens of bright flowers being actually at their best during September. A very pretty example of this is furnished by the accompanying illustration, which depicts a wall garden in September. I was allowed to photograph it by the kindness of Sir Warwick Morshead at Tregaddick, near Bodmin. The portion illustrated is a retaining wall about 6 feet high,

and it is now exceptionally gay with flowers. At the bottom in the foreground will be noticed a mass of white Heather in full bloom contrasted with the mauve flowers of *Linaria Cymbalaria*, and above that bold masses of the red *Valerian* (*Centranthus ruber*). The very slight shade afforded by the red *Valerian* allowed Ivies and Ferns to flourish next to it. A great feature of this wall consists of some judiciously introduced annuals such as *Eschscholtzia*, which are now in full bloom and form a pleasing contrast to the flowers of numerous *Antirrhinums* in red and purple shades of colour. *Sedums*

flowers at this time of the year are particularly welcome, and when they have a chance of at least partly drooping over the wall they show to double advantage; the greyish foliage, too, forms a pleasing contrast to the scarlet blossoms, and a great boon is that the plant when once established will take care of itself and flourish even in a very dry spot. Another plant of great merit for the wall garden is

*Plumbago Larpentæ*, whose bright cobalt blue flowers are now at their best. In a properly made wall garden there should be a fair amount of good light earth behind the stone.

*Plumbago Larpentæ* will send its rhizomes under ground to a great length, and its flowers will almost suddenly appear peeping out from the chinks and fissures of the wall where least expected. Much less rampant in its growth but exceedingly pretty as a wall plant is

*Lippia repens*, the pale green foliage and clusters of light pink blossoms being just now very attractive. Another pink flower blooming for the second time is

*Frankenia levis*. This, however, does not thrive so well on a wall fully exposed to the sun as in a partly shaded position.

*Eurotia pumila*, with its small, yellow flowers and its dwarf habit also makes a good wall plant flowering this month, and the same might be said of the perennial

*Antirrhinum glutinosum*, which still has its large white flowers open, displaying their against some belated blossom of blue *Campanula portenschlagiana*. I may here also mention a pink

*Convolvulus*, well suited to the wall garden in the west of England. Its flowers are now at their best; they are of a bright rosy pink and about the size of a florin. If planted on the top of a wall next to some bushes it will speedily climb over the bushes and spread itself out rather quickly. This plant must, of course, be restricted in its growth, but for quickly covering a rough wall or stony bank it has no equal. In winter it dies down altogether, and no foliage is visible till about May. An exceedingly neat and pretty wall plant now still in full bloom in the west is

*Asteriscus maritimus*. It is not hardy in the northern counties, nor is it quite hardy in the southern counties, but it thrives well in Torquay, Helston, Penzance, and other places. But even where it is not hardy this plant should be grown, for it is an easy matter to take cuttings. These strike very freely, and if protected would ensure plenty of flowers for the following year. The deep yellow blossoms almost resemble miniature Sunflowers, but they are only a few inches above the ground, most attractive, and quite the size of a florin.

Among *Sedums*, *S. cœruleum* is just blooming a second time, its delicate blue flowers being singularly pretty. Also *S. kamschatcicum* and *S. middendorffianum*, which were mentioned last month as being in bloom, have not yet lost their beauty.



WALL GARDEN IN THE GROUNDS OF SIR WARWICK MORSHEAD, AT TREGADDICK, BODMIN, CORNWALL.

(From a photograph taken in September by Mr. F. W. Meyer.)

of all kinds flourish in the narrower chinks and fissures, and on the top of the same wall is a glorious array of white Carnations, which have occupied their present position for ten years or more. Some of these Carnations may be noticed in the background of the picture. Other portions of Sir Warwick's wall garden will be illustrated in conjunction with subsequent articles.

#### GOOD WALL PLANTS NOW IN BLOOM.

I will now mention plants in bloom at the present time (middle of September) in other wall gardens. One of the best plants for a position similar to that occupied by the Carnations mentioned above as growing on the top of walls is

*Zauschneria californica*. The bright scarlet



*Acæna buchanianum* is attractive in the wall garden, not so much on account of its flowers as its beautiful glaucous foliage. When the large crimson globular heads of flowers of the peculiar *Acæna microphylla* are allowed to mingle with the former the effect is very striking.

*Elmside, Exeter.*

F. W. MEYER.

## TREES AND SHRUBS.

### TRANSPLANTING EVERGREEN TREES AND SHRUBS.

**P**RACTICAL men engaged in garden making frequently carry out planting operations, through force of circumstances, at times and seasons that would be considered unwise by those of more limited experience. It will probably be more expensive in the matter of labour to do work at what may be termed unseasonable times, but otherwise there is not so much risk as many suppose. I have moved evergreens in summer, but there was a good supply of water and mulching material, and the men were accustomed to the work and knew the importance of damping the foliage and keeping the bark fresh by every available means until root action commenced. The latter process will begin at once when the soil is moist and warm, and as soon as the fibres lay hold of the soil the tree is safe, so that really a tree moved in summer, if well cared for, quickly establishes itself in its new position.

There is, of course, a best time, or what is generally considered to be a best time, for the average planter to move evergreens, and this I should say is from the middle of September to the end of October in autumn, and from the middle of March to the end of April in spring. In the latter season it may be as well not to move anything during a spell of very drying March winds, although this objection might be obviated by the use of damp canvas or sacking round the roots, where they could be placed and firmly fixed in position by watering. Every year, even when the work is done at the best planting season, many things die from neglect. The critical time for things planted in autumn is in the spring, when the harsh drying winds set in. The trees may look fresh and green during the winter, and the mind of the casual observer may be lulled to rest for a time by appearances; but the roots have scarcely made any move, and are certainly not in a condition to bear up under adverse circumstances without help. This is the time when the water-pot, the syringe, or the hose over the foliage will do so much good, and unless this help is given the collapse is usually sudden and complete. I have often talked this over with people who had planting done, and they have said, "Oh, I am sure the trees have been well watered." Self-deception is so easy, especially to those who do not care to over exert themselves, who would rather wait for Providence to send the showers and temper the winds to the shorn lamb or the moved tree with lacerated roots. Some there are who think you are needlessly fussy when stress is laid upon the value of the hose and syringe over the foliage in bright, sunny weather, when the roots are trying to get a firm grip of the soil. But it is in the observance of small details that success is assured. One person may plant a tree as well as another, and yet one fails and the other succeeds. The reason is success is based upon the study of details and in their careful execution. And among evergreens there are several matters, small in themselves perhaps, but which bear importantly upon the success of the work. It is necessary to save as many roots as possible, and not only to save them during the process of lifting, but to protect and care for them until they are covered with soil and made firm in their new position. In taking up a tree or shrub of any size, begin far enough from the trunk and dig a deep trench round before the soil enclosing the roots is inter-

fered with. Then gradually reduce the ball until the movable limit has been reached. Of course, a tree or shrub with spreading branches will have had these tied in securely before the soil round the roots is touched. To move large trees requires proper tackle, but I have moved many trees and shrubs up to half a ton in weight with a very simple contrivance made of sheet iron, strengthened by transverse bars of flat quarter-inch iron. When completed the skid would be about 3 feet square, and fitted with two iron rings at each end for passing a cord through to secure the stem of the tree, and to which a horse could be hitched on occasions if necessary. When the tree was ready for removal the stem was pulled on one side, the sheet iron skid thrust under the bottom, the tree lowered upon it and secured with a cord, and afterwards a horse or man could be employed to move it, or, if the ground was rough or it had to be moved along a gravel road, a long-handled trolley on low wheels we used to find very handy. Of course, in moving very large trees more expensive tackle would be necessary, but the size generally moved could be easily and quickly carried anywhere with the simple contrivance named above, and any country blacksmith could make it or something on the same lines.

I believe in watering trees in and making the soil firm round the roots, they get established sooner; it is necessary also to secure the trees from swaying, which, if it occurs, will prevent their re-establishment. It is desirable, too, in moving a tree from a sheltered place to an exposed one to place a screen of some kind as a shelter for the first season till the tree has got acclimatised. Those who plant and leave things to Nature very frequently fail, and deservedly so. If the trees have to be purchased, buy as near home as possible when well-rooted plants which have been regularly transplanted can be obtained. If taken from nurseries where transplanting is neglected, failures must be expected, even with the best attention.

E. HORDAY.

### TENDER SHRUBS AND TREES.

YOUR articles on "Tender Shrubs and Trees in the South-West" have greatly interested me, inasmuch as when laying out a small garden (about  $1\frac{1}{2}$  acres) here nearly five years ago I planted many of the species mentioned, although in some cases quite unaware that they had been tried anywhere in England in the open air. A few notes may be useful for comparison, and may indicate possibilities for those who have not the advantage of a Cornish soil or climate. The following plants suggested by your lists have been tried here without winter protection, and I am convinced that a very small percentage of the losses sustained can be wholly attributed to frost or cold. Soil and moisture are the two elements of uncertainty which have played the greater part in checking the growth of many tender but desirable shrubs. Where a name is inserted without comment it signifies that the species is alive and apparently healthy, but since this garden is small and so recently formed few shrubs have yet attained or been allowed to attain any considerable height.

*Benthamia fragifera*.

*Buronia elatior*, *megastigma*, and *elliottiana* all failed, the soil quite unsuitable.

*Buddleia Colvillei*, *variabilis*, and *globosa* all free flowering; *variabilis* is already 20 feet in height.

*Callistemon rigidus* not quite so hardy as *Metrosideros*, but flowers fairly.

*Camellia reticulata*, *Sasanqua*, and *japonica* also grown.

*Cantua buxifolia* very healthy, but has not yet flowered.

*Carpentaria californica* flowers freely.

*Caryopteris Mastacanthus* very free.

*Ceanothus* sp. (?) flowers well, but Lemoine's variety (*Gloire de Versailles*) was lost.

*Citrus trifoliata* hardy, but has not yet flowered; *japonica* has fruited once and is hardy.

*Clorodendron trichotomum* and *fetidum* free; but *Balfouri* naturally failed.

*Clethra arborea* and *C. alnifolia* have both failed through unsuitable soil, although the latter is alive.

*Cytisus racemosus*, *Ardoini*, *purpureus*, and others all doing well.

*Daphniphyllum glaucescens*.

*Datura sanguinea*.

*Desfontainia spinosa* doing now, but twice tried unsuccessfully.

*Diosma gracilis* and *ericoides* flower well.

*Edwardsia grandiflora*.

*Embothrium coccineum* has been twice tried unsuccessfully. I would gladly like to know what conditions it requires.

*Eriostemon buxifolium* has not been tried, but a plant received under the name *densifolium* has flowered and is hardy.

*Escallonia*s have not had a fair trial. An inferior plant of *philippiana* stood out four years, and the species seems hardy.

*Eucalyptus citriodora* is somewhat cut back in winter.

*Eucryphia pinnatifida* has failed.

*Fabiana imbricata*.

*Fremontia californica* dies off in summer when apparently healthy, exactly as described by your correspondent.

*Grevillea robusta* is cut back in winter, but comes up again.

*Habrothamnus* (*Cestrum*) *elegans corymbosus* has not been tried.

*Hakea suaveolens*, *H. laurina* has not been tried.

*Illicium religiosum* (= *anisatum*).

*Indigofera floribunda*.

*Lagerstræmia indica* very healthy, but has not yet flowered.

*Leptospermum bullatum* flowers freely.

*Libonia floribunda*.

*Melaleuca densa* and *staphelioides*.

*Metrosideros floribunda* very free flowering.

*Mitrasia coccinea* failed; situation unsuitable.

*Nerium Oleander*, several of Lemoine's hybrids.

*Pawlonia imperialis*.

*Pentstemon cordifolius*.—Under this name I have twice received what I believe to be some other species, so I hesitate to claim success for the true one. Mine has not the climbing habit, and the flowers are not very bright in colour.

*Philesia buxifolia*.—The soil is unsuitable for this plant; it lives but does not increase.

*Piptanthus nepalensis*.

*Pittosporum Tobira*.

*Polygala oppositifolia* is a fine free-flowering bush; *grandiflora* has not been tried.

*Solanum crispum* rampant; *jasminoides* good.

*Sparmannia africana* is cut in winter, but springs again and has flowered.

*Bignonia*s and *Tecoma*s, *tweediana*, *radicans*, *speciosa*, *capreolata*, *rosea grandiflora*, *variabilis*, and *Smithii* are growing; but *Stans* and *jasminoides* have failed.

*Berberidopsis corallina*.

*Bougainvillea glabra* killed by frost; *sanderiana* cut but recovering.

*Cassia corymbosa* very late this season, but always flowers profusely after dying back in winter.

*Chorizema Chandleri* flowers winter and summer very freely.

*Clematis indivisa lobata*.—The best *Clematis* I have grown is *Nellie Moser*; *davidiana*, now in flower, is interesting.

*Clianthus puniceus* and *magnificus*.

*Diplacus glutinosus* very free, and is coming up self-sown.

*Hibbertia dentata* lately lost, but was badly placed.

*Hydrangea scandens* untried.

*Schizophragma hydrangeoides* is grown successfully.

*Kennedya monophylla*. I have not tried *nigricans*.

*Lapageria* on a north wall; I am now trying it under shade of very thick trees.

*Lasiandra macrantha* always cut back in winter, but springs again and nearly always flowers in November.

*Mandevilla suaveolens* grows very freely, but has not yet flowered.



*Physianthus albens* flowers freely, but has not fruited.

*Pueraria thunbergiana* has not flowered.

*Rhodochiton volubile* flowered profusely the first year, but died in hot summer weather when apparently quite healthy.

*Rhynchospermum jasmminoides* very free flowering.

*Sollya heterophylla* apparently quite hardy, but was lost last year in a bad position.

*Stauntonia latifolia*.

*Streptosolen Jamesoni*, tried many times, but always killed in winter.

*Swainsonia galega-folia alba*.

*Tacsonias*.—These were tried, but had not a good position and failed.

I might of course add many names to this list, e.g., *Cephalanthus occidentalis*, *Colletia horrida*, *Abutilons*, &c. Two are specially worth mentioning—*Manettia bicolor*, free flowering out four years, and *Asparagus Sprengeri*, quite hardy here; but I have referred only to such plants as were suggested by reading the lists published in your last four numbers under the signature "S. W. F."

(Mrs.) MARION GWYTHERNE-WILLIAMS.

*Belvedere, St. Lawrence, Isle of Wight.*

## ROUND ABOUT A GARDEN.

### BIRDS IN SEASON.

IN gardening you should always look ahead and decide early what kind of birds you would like to have, according to the season. In winter you can make arrangements for the various kinds of tits and nuthatches in spring by putting up nest boxes with holes graduated in size according to their intended occupants; but it is a mistake to put perches under the holes. None of these birds need a perch, for they fly straight at the hole with the accuracy of a bullet, but the vulgar sparrow immediately recognises the utility of a perch for his clumsy approach, and the courage of the tom-tit is of no avail against the clinching argument of the sparrow's beak. If, however, you put all the boxes at such a level that you can easily reach them and inspect them, the sparrows will have sense enough to leave them alone.

### THE MULTIPLYING STARLING.

Besides providing for the tits, you can, if you like, nail larger boxes high up on the stems and branches of big trees, where they will be occupied in due time by starlings, who will reward you with a great deal of fizzling song almost all the year through. Moreover, since starlings like each other's company, you can put a number of boxes in one tree; but most people may think that, in view of the Cherries, they have quite enough starlings about the place already. Like the rook and the sparrow, the starling represents a dominant type of bird under existing conditions, and wherever he gains a foothold he quickly multiplies.

### UNINVITED GUESTS.

Many birds need no special arrangements to induce them to patronise your garden. If you grow Strawberries and Currants you will have plenty of blackbirds and thrushes, while if there are any hawfinches in the neighbourhood you may confidently look for them among your green Peas. You may not actually see them, however carefully you look, because the hawfinch, though handsome, is shy and breakfasts very early in the morning; but you will see remarkable evidence of his appetite in the empty pods ripped open from end to end, and at the same time you will almost certainly see a dapper little warbler very busy among the rows. For so small and dainty a bird he does an amazing amount of mischief to the Peas.

### BULLFINCH OR GOOSEBERRY?

Another charming bird which, earlier in the year, will invite himself to gardens where Gooseberry bushes grow is the bullfinch, and you may travel in many lands without seeing anything in bird life prettier than a fine cock bullfinch as he sits glowing like a "pigeon's-blood" ruby, in a budding Gooseberry bush. In addition both he and his wife, an inseparable couple, exhibit such delicate contrasts of black and grey and white,

while their call note is so soft and plaintive, and his song so sweetly confidential, that you have hardly the heart to drive them "out of it." Yet you must make your choice between bullfinches in budding time and Gooseberries in season.

### PLANT AND BIRD AFFINITIES.

Fortunately there are some plant and bird affinities which do not conflict with the base utilitarianism of the kitchen garden. If you sow the blue Cornflower freely in some wild corner it will not only tint the place with a haze of blue from June until October, but will also surely attract thither in August any goldfinches which have reared families in the neighbourhood, and anyone who is not satisfied to see their yellow-barred wings flickering all together among the blue, as they make trapezes of the swaying stalks, must be hard to please. Later, if the gardener can be induced to overlook the fact that the Godetias are "over," their ripe seed pods will attract the travelling redpolls; and, although the dark crimson foreheads of these tiny birds scarcely relieve them of the appearance of dull coloured, undersized linnetts, their absurd tameness and engaging ways make generous compensation. You may stand over a clump of fruiting Godetia and watch the redpolls at your very feet performing prodigies of acrobatics, as they hang upon the seed pods and force them open.

### TREES THAT BIRDS DISLIKE.

In spring the same redpolls will come to your Larches; and, indeed, so long as the Larch has leaves it is the happy hunting-ground of many small birds, chiefly tits and warblers, which studiously avoid and manifestly dislike other trees that are commonly planted with the Larch, such as the Austrian Pine. Indeed, in this case the Larch is usually merely the "nurse" of the Pine, and is removed so soon as the latter is strong enough to stand by itself. If the birds were consulted, however, it would be the Austrian Pine which should go. They probably dislike this Pine for the same reason that they avoid the Privet, because so few insects feed upon it, and its close set leaves are real "needles." E. K. R.

## NOTES ON HARDY PLANTS

### CARNATION GEORGE MACQUAY.

REFERRING to a note by Mr. Watts about this Carnation I was pleased to see it, as it was raised in my garden. At the time we compared it with all the whites known, and found it enormously more vigorous and better. Thinking that the recent additions might have made a difference, I tried all the new whites I could hear of and did not find one quite so good, and most were far inferior in endurance, vigour, and beauty. Therefore I hope that George Macquay will be one of those Carnations that men will not let die out. I have no doubt it has many defects from a "florist's" point of view, but I never knew any of them to think what is for us the main point—the effect of a flower in the open air. W. R.

### ARABIS ALBIDA FL.-PL.

This plant is really *A. alpina* fl.-pl., but it is certainly a free and almost perpetual bloomer from spring until late autumn. Neither the individual flowers nor the spikes are so fine as they are in spring, when, if well grown, they are about equal to white Stocks. It is not at all troubled by thrips here as in Worcestershire, and has been very healthy all the summer. I am hopeful that it will prove a good "wall garden" plant, as it has so far done well on a double wall here, although it was not planted until late in spring. It has, however, grown freely during the

summer, and has prettily veiled with green foliage, enlivened with flowers, the rough wall on which it is planted. I anticipate that it will be very beautiful in spring. It is almost absurdly easy to propagate by cuttings. I inserted a number of these in June in light soil under a handlight, well watered and shaded them for a week or so, and had very few failures.

### HEUCHERA SANGUINEA × HEUCHERA CYLINDRICA.

As Mr. Goodwin remarks on page 166, this is an acquisition; and one would be glad to have a convenient name for it. I believe it was raised by the Rev. C. Wolley Dod, from whom I received it. If so, I hope that he will give it a name of some kind. I find it is much the same as *H. zabeliana* in my garden, but I imagine from what I have seen that dry gardens such as those possessed by Mr. Goodwin and myself are not the best for developing the beauties of the Heucheras.

### DIANTHUS PANCICI.

THIS is one of the tall-growing Dianthus that attracts the attention of visitors who do not know the very varied character of the genus in the way of habit and flower. Even on a dry soil it has reached a height of fully 4 feet here, and has borne on each of its straight and comparatively slender stems a head of bright crimson-purple flowers. The leaves form a low tuft of grassy foliage, but there is very little in the way of leafage on the stems. It is rather a difficult plant to treat so as to keep its flowers from bearing down the tall stems in stormy weather, and it seems to be most satisfactory to provide it with a "host" plant in the way of a shrub through which its flowers can rise. It has looked well this season through the foliage of the variegated Broom.

### ROSA WICHURIANA.

I LOOK upon this as one of the most charming of all the small-flowering single Roses, and I have not yet seen any of the hybrids raised from it to equal the original in the beauty of its glossy foliage, the charm of its pretty single flowers, and the fragrance which it possesses in so marked a degree. It takes up a great deal of room if growing on the rockery or on a grassy bank, in either of which positions it looks remarkably well, and it is more suitable for small gardens if trained as a pillar. This year it has been unusually late, and I had not a flower until about the last day or two of August. *R. wichuriana* is valuable because of its late flowering, as well as for its beauty, and its blooms stand frost better than those of many other Roses.

### INULA ROYLEANA.

THIS promises to be a decided acquisition to the garden of hardy flowers, and, although my only plant, received from Baden-Baden last autumn, was injured, it is now most showy and attractive with its large orange-yellow flowers. The accident to the plant has prevented my judging its full height with certainty, but it is evident that here we have a plant worthy of taking high rank among the bright and attractive Inulas.

S. ARNOTT.

*Rosdene, Carsethorn, by Dumfries, N.B.*

### DIANTHUS CYCLOPS.

UNDER the above name a beautiful Dianthus is, and has been for some time past, flowering here (Rothesay). It is one of the best of the hardy Pinks, and is well worth growing where there is a rockery or herbaceous border. It does not appear to be very common, as I cannot find it mentioned in some of the catalogues of the large firms. It is mentioned in the Kew List of herbaceous plants published in 1893, but I find no mention of it in the present edition. It is given in the Kew List as of garden origin, but I think myself that it is only



a variety of *D. Caryophyllus*. The flowers are about 2 inches in diameter, and are of a delicate rose with a dark crimson centre, the edge of the flower being delicately cut. It can be propagated by seed or by cutting, but the best way of getting good plants is by layering. It is a good plan to layer a plant and leave the layers where they are to flower, as in this way good clumps are formed. It enjoys a fairly sandy soil, and seems to do best in a south-west position on the rock garden, although the herbaceous border suits it, providing other plants do not encroach. The best plants here are in that position, and they have been a picture since June, being simply covered with bloom, as many as forty flowers being out on a plant at one time. It has proved perfectly hardy here, having stood out all last winter.

*Rothsay, N.B.*

G. M.

### NATURALISING BULBOUS PLANTS IN GRASS LAND.

THE plants that may be used for beautifying grass, woodland, and such places are many. As the object in planting bulbs freely amongst grass is to get quite a natural effect, one must seek to reproduce the simple groups seen in woodland and field. There must be no round rings, straight lines, or formal curves; but the bulbs should be planted as suggested in the accompanying illustrations.

Cultivation, as we understand it, is practically impossible once the bulbs are planted. Success can only be ensured by carefully selecting types that will be likely to succeed in such soils. The necessity of thus specialising certain bulbs for certain soils, &c., is a real one. Many bulbs that find the rainfall of the east coast of England insufficient will revel in the heavier rainfall of the west coast. On the other hand, they may grow well in moist valleys on the east coast and fail on a too well drained hillside on the west coast.

With a view to guiding those who contemplate planting a table has been prepared from which individuals may be selected which require similar conditions as to soil, moisture, season of planting, and height of growth, and be expected to hold a fair balance of growth with the grasses that would not exceed their own height at the time of flowering. The approximate height, colour, exposure, soil, time of planting, time of flowering, powers of producing seed, and the distance apart to observe in planting are given for each bulb.

The height of growth and time of flowering will guide the planter in choosing the turf sites for the plants. Close growing turf will only accommodate the bulbs of lesser growth and early flowering, whilst stronger growing turf, suggesting a fairly rich soil, will accommodate the taller and stouter types. Exposure, soil, time of planting, and distance apart are important, for without careful consideration of these points bulb cultivation is scarcely possible, whilst production of seed must also be considered. Those whose powers of seed production are described as good produce seed which may reasonably be expected to germinate where it falls, and such plants may be regarded as the best to naturalise, as they rarely fail to get established.

Many genera contain several distinct types which cannot be made to thrive in grass together, and it would save time, money, and disappointment if bulbs were rigidly selected to suit the soils, so that

they may really naturalise themselves and last for many generations unaided, rather than prepare soils by manuring, &c., to suit the bulbs. This latter is costly and troublesome, and effective only so long as the prepared condition may last.

Such preparation of the soil as may be necessary for the bulbs should be carried out in August, as by that time most will be ready to grow. The methods of doing this will vary with the nature of the soil and the rooting characteristics of the bulbs.

Light soils for alpine and Asia Minor bulbs, such as *Muscari*, *Galanthus*, and those bulbs of small stature which require a light and somewhat dry medium, need not be dug. A loosening of the soil, effected by working a digging fork below the turf layer as far as it will go—taking thin strips at a time to ensure a thorough loosening—will be sufficient, and they may be sown broadcast and dibbled in where they fall without further preparation beyond a layer of soil to rake over the holes when planted.

A well-prepared soil should be selected for bulbs of stronger growth, and rendered friable and accessible to roots by deep digging, the turf being

on a grass bank, the soil of which, though friable, should not be too dry. These species flower very early in the year, almost before grass begins to grow, so that the height the grass ultimately attains is not very important. The *Iris* leaves attain a great length after the plants flower, so much so that it is almost impossible for the grass on a bank to choke them.

Irises of the *Persica* group, such as *Heldreichi*, *Tauri*, *caucasica*, *sindjarensis*, and *tubergeniana*, may also be planted on a bank, but the soil should be so well drained that the grass would wither in dry weather in order that the bulbs may have a good ripening, and that their leaves, which do not grow very tall, may make headway. These Irises should not be planted deeply; their roots will find their way to a great depth in most soils and not feel the influence of drought. Irises of the *juncea* type, such as *Boissieri*, *tingitana*, and *filifolia*, require a warm position, the bulbs being planted 5 inches to 6 inches deep if the surface soil is friable. They can only be recommended for warm counties.

The Spanish Irises, now almost universally planted, can be got in a great variety of beautiful



CROCUSES (*CROCUS VERNUS*) NATURALISED. (From a photograph by Miss Willmott.)

stripped off for the purpose. If available some rough but decayed leaf-soil should be worked deeply into the soil, having regard to the fact that bulb roots feed much more deeply than most plants. If slugs, wireworms, or other depredators are noticeable, it is important that each bulb should have an envelope of sharp sand, as this effectually prevents their reaching the bulbs, except by the decayed stem, which should be cut, not pulled out and thus form a passage. Once planted and the turf relaid a roller may be passed over the site a few times to settle the soil and any slugs that may be in the turf. Rolling occasionally when the bulbs are resting will do much to reduce the slug plague. Any special conditions to observe in planting, such as depth, &c., will be found briefly noted in the table.

Three great genera—*Iris*, *Tulipa*, and *Narcissus*—cannot, for considerations of space, be treated in specific order like the smaller genera, but some idea of the requirements of the various types comprised in each genus may be gathered from the following notes.

#### IRISES.

The lesser bulbous Irises, such as *bakeriana*, *reticulata*, *Histrio*, and *histrioides*, are only happy

colours, and may be grown in any light soil. Being tall, with erect, grassy leaves, they may be planted in almost any grass, but are better in the wild garden and grassy plots in shrubberies than for carpeting a flat piece of turf in the open. The one drawback to their cultivation is the untidy appearance of their leaves and stems after flowering, and on this account one would like them planted in a place somewhat removed from frequented thoroughfares where they could be visited when at their best. It would not be wise to cut the stems down, for a good deal of bulb building is going on even when half the length of the leaves is withered.

The English Irises require similar positions, but the soil should be stronger and decidedly damp. They delight in half shade, preferring places where the coarser Ferns delight to grow, such as a woodland glade and thin coppice. The flowers grow larger and last longer in half shade than in full sunshine, and the bulbs delight in the light leafy vegetable deposit generally found in such places. Even in well-managed borders their flowers are soon over in hot weather. The colours of varieties may be obtained from any bulb catalogue.



*Iris tuberosa* (the Snake's-head Iris), a flower many admire for its quaint colouring, will grow almost anywhere. It should be planted in deep clumps for effect and in places where it is not likely to be trampled upon. Slugs and most rodents are fond of its tuberous roots. Early planting of all Irises should be a general rule.

#### TULIPS.

Tulips cannot be naturalised with any degree of certainty, although they may last for a few years. Garden forms revert by degrees to their original types, but a number of species and a few varieties will find the conditions suitable. The soil for these Tulips should not be dry, hard, or too well drained, and soils of a sterile nature, in which fungoid growth revels, should be carefully avoided, for the roots of Tulips are fibrous and do not penetrate to the same depth as Irises and Narcissi.

Light soils supporting a short close turf will accommodate the dwarf Crocus-like Tulips from Asia Minor, &c., such as *persica pulchella* and *montana*. These flower early in the season and ripen quickly. One may plant them in places considered suitable for Irises of the *reticulata* group. Woodland glades and natural shrubberies, in which a layer of leafy deposit may be found, will grow Tulips *saxatilis* and *sylvestris* and their varieties. Both these Tulips ramble about by underground offsets, a bulb forming at the extremity of each runner. They invariably succeed in well-sheltered sites where the sun's rays are tempered, but they succeed better without direct shade overhead. Frosts frequently spoil the flowers in the open border, and a sheltered position such as that described will suit them far better than an open exposure. They are very effective and strong, and worth every effort to

naturalise, as they are capable of producing delightful pictures.

The choicest border Tulips, such as *La Merveille*, *vitellina*, *fulgens*, *Picotee*, &c., should not be trusted to hold their own amid grasses unless the soil be of exceptionally good tilth, but such kinds as *macrospila* (crimson-scarlet and fragrant), most of the Gesner Tulips, *Tulipas carinata*, *maculata*, *viridiflora*, *oculis-solis*, and several of the European species may be planted in good soil in sunny positions, whilst the first-named (*T. macrospila*) will thrive for years in the poorest of soils and lose none of its beauty. It is exceptionally hard to kill. In the main, Tulips that grow well in cultivated shrubberies, where the conditions are invariably much worse than in open pastures, may be expected to give a good account of themselves, the one feature to observe being a fair balance of growth between the Tulips and grasses, a matter that can only be determined on the spot. Parrot Tulips are not very satisfactory under harsh conditions, but one of their parents, *T. cornuta*, may be grown well where any other Tulip manages to live.

#### NARCISSI.

Narcissi are delightful in grass. A few, however, will not thrive there, being mainly garden creations requiring good cultivation to maintain their high standard, whilst a few of the heavy headed donbles, such as *Sulphureus plenus*, *Aurantiacus plenus*, and *Incomparabilis plenus*, spoil any good effect by flopping about in all directions after the first breath of wind. It is not possible to deal thoroughly with the hundreds of varieties comprised in this great genus, as their cultivation is simple and well understood, whilst many object-lessons such as those at Kew exist for all who desire to study the types that do best. A few general notes, however, may be helpful. All Narcissi thrive best in a damp

soil of good depth. A few types, such as *biflorus*, *stella*, *spurius*, the *Campanelles*, and the *Tenby* *Daffodils* maintain some vigour in drier soils, but for the majority a damp substratum, easily accessible to their roots, is essential. A light shade suits them all, and may be regarded as exceptionally advantageous to such types as *Barri*, *incomparabilis*, *Leedsii*, and their many varieties, whose coronas and thin petals wither badly under the influence of the April sun, spoiling them long before their season.

It may not be necessary to dig friable soils of good depth for their reception if the dibber penetrates easily, but in the majority of cases it will be found advisable to strip off the turf and dig deeply, as advised in a preceding paragraph. A reasonable expenditure of time and trouble in soil preparation will save much trouble later on, and the bulbs will thrive all the better for it. Practically all the Trumpet *Daffodils* may be grown well in the open pasture, but the smaller growing sections, such as *moschatus*, *triandrus*, and *Bulbocodium*, cannot withstand drought, and grasses on wet sites soon choke them. Little colonies may, however, be established on the half clothed banks of small streams. Use the *Creeping Jenny* (*Lysimachia Nummularia*) to cover and protect them. *N. bulbocodium* type is strong enough to grow amongst grasses, and it withstands drought better than the others of its group, but none of these lesser Narcissi can be regarded as good plants for naturalising or grass planting, owing to the difficulty of balancing their growth with that of the grasses.

Early planting is of the utmost importance. It is quite a mistake to wait for the clearance lists of dealers before purchasing stocks, as many of the bulbs so obtained have spent four or five months of their growing season in a warehouse. The best planting months are September, October, and November.

TABLE OF BULBOUS PLANTS, &c., WITH CULTURAL DETAILS, FOR NATURALISING IN GRASS.

Plant.	Height. Inches.	Colour.	Exposure.	Soil.	Time of Planting.	Time of Flowering.	Seed (Production of).
<i>Allium Moly</i>	12	Yellow	Sunny	Common	September—November	June—July	Very good
" <i>neapolitanum</i>	18	White	Various	"	"	"	"
<i>Anemone apennina</i>	6	Sky blue	Sunny	Light and damp	August "	Spring	Fair, but requires culture
" <i>alba</i>	6	White	"	"	"	April	"
" <i>blanda</i>	8	Rich blue	Sun or shade	"	"	"	"
" <i>taurica</i>	8	White, sky blue	"	"	"	"	"
" <i>fulgens</i>	12 to 18	Scarlet	Sunny	"	"	April—May	"
" <i>annulata</i>	12 to 18	Scarlet, wh. eye	"	"	"	"	"
" <i>græca</i>	12 to 18	Dark scarlet	"	"	"	"	"
<i>nemorosa</i>	4 to 8	White	Thin woods	"	August—September	April "	Good, and germinates well
" <i>alba plena</i>	4 to 8	"	"	"	"	"	"
" <i>robinsoniana</i>	4 to 8	"	"	"	"	"	"
" <i>palmata</i>	6	Pale blue	"	"	September	May	"
" <i>alba</i>	6	Yellow	"	"	"	"	"
" <i>Pulsatilla</i>	6	White	"	"	"	"	"
" <i>sylvestris</i>	12	Purple	Sunny	Damp limestone	Winter	April—May	Uncertain, and difficult to grow
<i>Barnardia aciloides</i>	12	White	Sun or thin woods	Light and damp	"	May	Fair, but requires culture
<i>Bellevalia romana</i>	9	Rose	Sunny	Common	March—July, August	September	Very good
<i>Bloomeria aurea</i>	12	Steel blue	"	Light	September	April	"
	12	Yellow	Sunny; plant deeply in warm countries only	Light and dry	"	June	"
<i>Brodiaea Bridgesii</i>	12	Lilac-red	"	"	"	May—June	"
" <i>capitata</i>	24	Violet	"	"	"	June	"
" <i>congesta</i>	36	Pale violet	"	"	"	"	"
" <i>grandiflora</i>	6	Dark blue	"	"	"	"	"
" <i>ixioides</i>	10	Yellow	"	"	"	"	"
" <i>lactea</i>	18	White	"	"	"	"	"
" <i>laxa</i>	18	Purple	"	"	"	"	"
" <i>multiflora</i>	36	Blue	"	"	"	"	"
" <i>peduncularis</i>	18	White	"	"	"	June—July	"
" <i>stellaris</i>	6	Dark blue	"	"	"	June	"
<i>Bulbocodium vernum</i>	4	Rosy purple	Sunny	Light and damp	"	February	Uncertain
<i>Camassia Cusickii</i>	36	Pale blue	Sunny and sheltered	Strong and damp	"	May	Very good
" <i>esculenta</i>	18	Blue	Various	Various	"	June	"
" <i>Leichtlinii</i>	36	White to blue	Sunny and sheltered	Strong and damp	"	"	"
" <i>montana</i>	24	Blue	"	"	"	"	"
<i>Chionodoxa gigantea</i>	8	Rich lavender	Full, in short turf	Light	August—September	March	Fair only
" <i>Lucille</i>	6 to 7	Pale blue, wh. eye	"	"	"	"	Very good
" <i>sardensis</i>	6 to 7	Deep blue	"	"	"	"	"
" <i>Tmolii</i>	6 to 7	Blue, white eye	"	"	"	"	Fair only
<i>Colchicum autumnale</i>	6	Rosy purple	Various	Various, but damp	August "	September—October	Good
" <i>album</i>	6	White	"	"	"	"	Reverts to type
" <i>roseum</i>	6	Lilac-rose	"	"	"	"	Untested
" <i>Parkinsoni</i>	6 to 8	Chequered lilac	Sunny and sheltered	"	"	"	Good
" <i>variegatum</i>	6	Chequered purple	Various	"	"	"	"
<i>Crocus asturicus</i>	6	Purple shades	Sunny	Light	"	September—October	Untested
" <i>biflorus</i>	6	Lilac strpd. white	"	"	"	February—March	Good
" <i>chrysanthus</i>	4	Yellow	Various	Common	"	"	Very good
" <i>Dutch vara.</i>	6 to 8	Various	"	"	September	Spring	May revert to types
" <i>longiflorus</i>	8	Rosy lilac	Sunny	"	August	"	Untested
" <i>reticulatus</i>	4	"	"	Light	September	"	"
" <i>sativus</i>	6	Purple	"	Light and damp	August	September—October	Good
" <i>speciosus</i>	6	Blue	"	"	"	"	"
" <i>tommasinianus</i>	6	Lavender	Various	"	September	Spring	"
" <i>zonatus</i>	4	" red eye	Sunny	Light	August	September—October	Fair, but uncertain
<i>Cyclamen cilicicum</i>	4	White	Thin woods	Light and dry	"	Spring	Untested
" <i>Coum</i>	4	White to crimson	" and open	"	"	Winter	Good, but requires culture
" <i>europæum</i>	4	Crimson	Thin woods	"	"	Summer	"
" <i>hederifolium</i>	4	Pale crimson	"	"	"	Spring	"
<i>Eranthis cilicica</i>	4	Yellow	Sunny slopes	Light	August—September	Winter	Good
" <i>hyemalia</i>	4	"	Various	Various	"	"	"



Plant.	Height. Inches.	Colour.	Exposure.	Soil.	Time of Planting.	Time of Flowering.	Seed (Production of).
<i>Erythronium americanum</i>	6 to 8	Light yellow	Thin woods or shelter	Damp and deep	September	April	Good, but requires culture
" <i>Dens-canis</i>	6	Various	Various	Various	"	March—April	Good, germinates naturally
" <i>grandiflorum</i>	8	Golden	Thin woods and shltr.	Damp and deep	"	April	" but requires culture
" <i>giganteum</i>	8	Straw	Various	"	"	April—May	"
" <i>Hartwegi</i>	8	Light yellow	"	Various	"	April	"
" <i>Hendersoni</i>	8	Purple	Thin woods and shltr.	Damp and deep	"	"	"
" <i>revolutum</i>	8	Shades of rose	"	"	"	"	"
<i>Fritillaria armena</i>	4	Golden	Sunny, in short turf	Light	"	March	Good
" <i>aurea</i>	6	"	"	"	"	"	"
" <i>citrina</i>	8	Citron-yellow	Various	"	"	"	"
" <i>Imperialis</i>	36	Various	Sunny	Strong and damp	September—October	April	"
" <i>Meleagris</i>	12	"	Various	Light and damp	"	"	"
" <i>alba</i>	12	White	"	"	"	"	"
" <i>pyrenaica</i>	6	Straw	Sunny	Light and dry	"	June	"
" <i>Whittallii</i>	8	Greenish yellow	Sun or shade	"	"	March—April	"
<i>Galanthus cilicicus</i>	6	White	Various	"	August	Midwinter	Untested
" <i>Elwesii</i>	6	"	Sunny	Light and damp	"	March	Good
" <i>Whittallii</i>	8	"	"	"	"	"	"
" <i>Ikarize</i>	6	"	"	"	"	"	"
" <i>nivalis</i> vars.	6	"	Various	Various	"	February—March	"
<i>Hyacinthus amethystinus</i>	12	Blue	Sunny	Light and deep	September	May	Very good
" <i>albus</i>	12	White	"	"	"	"	"
" <i>azureus</i> and vars.	4 to 6	Sky blue	"	Light	August	February—March	"
" <i>romanus</i>	8	Steel blue	"	"	August—September	April	"
" <i>webbianus</i>	8	Blue	"	"	"	"	"
<i>Iris</i> (see letterpress)							
<i>Ixiolirion montanum</i>	12	Rich blue	"	Light, plant deeply	September—March	June	Good, requires culture
" <i>tataricum</i>	18	"	"	"	"	"	Very good
<i>Lencojum æstivum</i>	12	White	Various if damp	Various	September	April—May	"
" <i>vernum</i>	6	White and green	"	"	August—September	March	"
" <i>carpathicum</i>	10	White and yellow	"	"	"	"	Untested
<i>Merendera Bulbocodium</i>	4	Rose	"	"	"	"	"
<i>Muscari botryoides</i>	5	Blue	Various	"	August	April	Very good
" <i>album</i>	5	White	"	"	"	"	"
" <i>conicum</i>	8	Rich blue	Sunny	Light and deep	"	"	"
" <i>Heldreichii</i>	6	Dark blue	"	Light and dry	"	"	"
" <i>neglectum</i>	8	Steel blue	Various	Various	August—September	"	"
" <i>paradoxum</i>	9	Blue-black	Sunny	Light and damp	"	April—May	"
" <i>racemosum</i>	6	Pale blue	"	"	"	April	"
" <i>szovitsianum</i>	5	Cobalt	"	Light and dry	August	"	Untested
<i>Narcissus</i> (see letterpress)							
<i>Ornithogalum nutans</i>	6	White	Various	Various	Autumn	June	Very good
" <i>narbonense</i>	18	"	Sunny	"	September—October	June—July	"
<i>Pancretium maritimum</i>	12	"	South'n counties only	Strong and free	October—March	Autumn	Uncertain
<i>Puschkinia scilloides</i>	6	Cobalt	Sunny	Light and damp	September	April—May	"
<i>Scilla bifolia</i> and vars.	6	White to blue	Various	Light	August	March	Very good
" <i>campanulata</i>	12	Pale blue	"	Light and damp	"	May	"
" <i>alba</i>	12	White	"	"	"	"	Reverts to type
" <i>Excelsior</i>	15	Rich blue	"	"	"	"	May revert to type
" <i>italica</i>	8	Blue	Sunny	Light and dry	August—September	"	Very good
" <i>mutans</i> and vars.	12	Blue-white	Thin woods	"	"	April	"
" <i>sibirica</i>	6	Deep azure	Sunny	Light and damp	August	March	"
" <i>alba</i>	6	White	"	"	"	"	Reverts to type
" <i>verna</i>	6	Deep lilac	Various	Light and dry	"	April	Good
<i>Sternbergia fischeriana</i>	6	Yellow	Sunny and sheltered	Light and damp	"	February—April	Good, requires culture
" <i>lutea</i>	6	Rich yellow	"	"	"	September—October	"
" <i>major</i>	7	"	"	"	"	"	"
<i>Trillium grandiflorum</i>	9	White	Thin woods	Damp <i>humus</i>	October	June	Good
" <i>sessile</i>	12	Light purple	Various	Wet <i>humus</i>	"	April—May	Good, may require culture
<i>Triteleia uniflora</i>	8	White or porcelain	"	Light and dry	August	"	Very good
" <i>violacea</i>	8	Pale violet	"	"	"	"	May revert to type
<i>Tulipa</i> (see letterpress)							
<i>Zephyranthes candida</i>	8	White	Sunny in S. counties	Light and damp	Winter	Autumn	Good, requires culture

GEO. B. MALLETT.



THE NYMPHÆA (WATER LILY) POND IN REGENT'S PARK. (Photograph taken September 1.)

## TOWN GARDENING.

WATER LILIES IN  
REGENT'S PARK.

GOOD lessons in town gardening may be learnt from the London parks, especially from Regent's Park, where Mr. Jordan, the superintendent, plants many of the best hardy flowers to show their beauty near the crowded and smoky metropolis. The Hollyhock border has been, as usual, a quaint picture, and the Water Lily pond proves a grateful relief from the gay masses of exotics and hardy flowers. This Nymphæa pond is a source of pleasure to Londoners, and shows a phase of flower gardening with which they are not familiar. The little colonies of crimson, yellow, rose, and other shades of Water Lilies are very bright when the flowers open wide to the sun, and the water-loving plants at the edge of the pool have quite a natural effect. The water garden in Regent's Park is undoubtedly one of its most interesting features, and one that other parks might copy.



## BULBOUS PLANTS FOR THE GREENHOUSE.

THERE are many bulbous plants suitable for the cool greenhouse or conservatory in early spring which will require but little warmth to have them in flower some weeks earlier than they would be when grown in the open ground. Though many of them do not last long, they come into bloom just at a time when they are most appreciated, and they occupy little room before they are in flower, while they can be turned out as soon as they are over. Quite a long list of useful subjects might be given. Those enumerated below are among the best. Of course, the Hyacinths and Tulips require to be renewed each year, but many may be grown on from year to year if carefully treated.

### HYACINTHS.

In the culture of Hyacinths it is of the first importance to secure good bulbs to start with. It is not always the largest bulbs that prove the best, but smaller ones that are firm and well ripened are the most satisfactory, and varieties vary, some making much larger bulbs than others. For early flowering they should be potted as early as possible. Any ordinary garden compost may be used. In potting the crowns should be kept well above the soil, and the bulbs should not be pressed down, for if the soil is hard at the base of the bulbs, the roots, which start altogether, cannot penetrate and the tips get damaged, and the bulbs may be lifted out of the soil if very hard. After potting it is usual to stand them in the open and

give a thick covering of cocoanut fibre refuse or other light material. They may then remain until required for starting. When for early flowering they should have an inverted pot placed over each when first put into warmth, and these may be removed after the bulbs have made a good start. After they are well started, light and sunshine are of more importance than a high temperature. The number of flowers cannot be increased, but by liberal and careful treatment the individual flowers can be got bigger, and also the foliage. Liquid manure made from cow manure and soot is the best stimulant. I hardly need add that it should be made some time before required for use and allowed to settle down, so that it can be used in a clear state, but I find it most difficult to make many understand that the virtue lies in the "liquid," and not in the dregs.

*Varieties.*—The single varieties are the most satisfactory for pots, and I should select the following, which will be found very serviceable for general purposes. White: La Grandesse, Mont Blanc. Blush: Grandeur de Merveille, Leviathan. Pink: Norma, Princess of Wales. Red: Robert Steiger, General Pellissier. Yellow: King of Yellows, Yellow Hammer. Light blue: Czar Peter, Enchantress. Medium blue: Captain Boyton, Leonidas. Dark blue: Baron Von Thuyll, King of Blues. Purple: The Sultan, William I.

### TULIPS.

These require similar treatment to Hyacinths. After the flower buds show a light sunny position will be more advantageous than much artificial

heat. For very early flowering the Due Van Thol varieties may be grown. These may be had in six different colours, but the flowers are small, and I should only recommend them for very early forcing. The Pottbakker, white, red, and yellow, are fine for pots, and force well. Other sorts specially worthy of attention are: Dusart, dark red; Cottage Maid, blush; Ophir d'Or, yellow; Proserpine, crimson, with a silky shade; Thomas Moore, apricot; Vermilion Brilliant, bright crimson; Prince of Austria, orange-scarlet; Cerise Gris de Lin, buff; Princess Marianne, white; Mon Tresor, yellow; Keizerskroon, scarlet and yellow; and Bride of Haarlem, carmine, feathered white.

The best double varieties are: Rose Blanche, white; Blanch Hative, white; Murillo, rose; Murillo, yellow; William III., orange-scarlet; Leo XIII., scarlet, with yellow centre; Queen of the Netherlands, white, shaded rose; and Rose d'Amour, rose.

### LACHENALIAS.

These are very pretty for spring flowering, and come into bloom quite early without any forcing. After they have done flowering they may be gradually dried off and later on repotted, selecting the largest bulbs, and about six in each pot make a nice show. The varieties are not numerous, and all are pretty, but Nelsoni is the finest for pots, having long spikes of rich yellow flowers.

### LEUCOCUM VERNUM (SPRING SNOWFLAKE).

When potted in the autumn and kept in a cold pit during the winter it will soon start away when placed in a sunny position in the greenhouse in spring.



STAR AND OTHER DAFFODILS IN GRASS LAND. (From a photograph by Miss Willmott. See page 196.)



## GLADIOLUS COLVILLEI THE BRIDE.

This pure white *Gladiolus* is useful for pots. Strong bulbs will generally throw up two or three spikes of bloom, and the bulbs should not be too much crowded in the pots. Use a good loamy compost, and after they are potted they may be placed in a cold pit and started when convenient. Besides the above there are now several other very pretty early varieties, such as *Blushing Bride*, *Pink Perfection*, *Peach Blossom*, and *Rosy Gem*. After these have done flowering and are properly ripened off the largest bulbs may be selected for the following season, and if the smaller ones are planted out they will make good bulbs for further succession.

## IXIAS.

We get a great variety of colours in these, and they are easily grown. They should be potted early in the autumn. Use a compost consisting of sandy loam and leaf-mould. If protected from frost it is better not to use any extra covering on the surface of the pots. They may be taken in and placed on a shelf or in any light position, and will come into bloom in time to succeed some of the earlier flowering bulbs. Of named varieties, *Craterioides*, *Emperor of China*, *Humbert*, *Magnum Bonum*, *Excelsior*, *Elvira*, *Viridiflora*, and *Vulcan* is a good selection, or mixed varieties are satisfactory.

## FREESIA REFRACTA ALBA.

This may be grown under the same treatment as the *Ixias* and is one of the prettiest subjects for early flowering. It will be found very useful either for the conservatory or for cut bloom.

## NARCISSI.

Formerly it was only those of the polyantha type that were grown in pots, and these are still very desirable, the *Paper White* and double *Roman* coming in very early, and of others such as *Grand Monarque* and *Gloriosa* are still among the best. There is a great advantage in getting these potted as early as possible. They may be stood in the open and have a good covering of cocoanut fibre refuse, and if the weather is not too severe they will start early. As soon as they show through the covering may be removed to a pit and taken into more warmth as required.

## DAFFODILS.

The ordinary trumpet varieties are the most showy for the greenhouse, and all the newer and choicer varieties may be grown, but such as *Emperor*, *Bicolor Horsfieldi*, *Princeps*, *Obvallaris*, and *Telamonius plenus* make a good show. Potted early and kept in a cold pit until they are well rooted they may then be taken into warmth as required.

A. HEMSLEY.

## SOME NEW TRUMPET DAFFODILS.

THE last few years have shown a marked advance in many of our best hardy flowers, but I venture to say that no other family has so well rewarded the skill of the hybridist as the *Narcissus*. It is to a few of the novelties in the white and sulphur-coloured trumpet section that I wish to draw attention, as great strides have been made in these of late. The two most remarkable flowers which have as yet appeared are undoubtedly

*Peter Barr* and *Florence Pearson*. — The former I daresay many of your readers saw at the Drill Hall on April 8 last, and it has been fully described in *THE GARDEN*, while only those who were fortunate enough to be present at the last show of the Midland Daffodil Society saw the first and only flower which the latter has yet unfolded. The resemblance between these varieties is very close, but, as

shown, many keen judges were inclined to give the palm to *Florence Pearson* as being the most perfect flower. We have already been told that *Peter Barr* originated from *Monarch* and *Mme. de Graaff*, and, when visiting *Lowdham* in June, Mr. Duncan Pearson kindly showed me the solitary bulb of *Florence Pearson* and told me something of its history. The bulb is very large and massive, and was lifted in the hope that there would have been at least one offset large enough to detach. This, however, proved not to be the case, as, though several offsets had been made, not one

have yet to bloom. As exhibited at *Edgbaston* several of our best judges pronounced highly in its favour, while its refined shape and translucent texture were remarked upon by all.

Yet another beautiful trumpet Daffodil which we owe to Messrs. Pearson is

*Mrs. Hillhouse*. — This is a very refined bicolor, with a long pale yellow trumpet, and is perhaps best described as a glorified *J. B. M. Camm*. The segments are stiff and of good substance, while the whole flower lasts in good condition a long time, and the foliage is strong and broad. Mr. Duncan Pearson tells me that he has no record of its parentage. Exhibited at *Birmingham* in 1894 it gained a silver medal, and when shown before the *Midland Daffodil Society* in April last it deservedly gained an award of merit.

*Lady Audrey*, which gained an award of merit for Messrs. Barr at *Edgbaston* this year, is of singular beauty, and has well been said to be a smaller *Peter Barr*, though it seems hardly quite so pure in colour as that variety. It is of good substance, and the colour of both trumpet and segments is a pale lemon-white, while the base of the flower adjoining the stalk is splashed with a yellowish green.

*Warley Magna*, which was so well shown both at the *Drill Hall* and also at *Edgbaston* by Miss Willmott, is a very pure and chaste white *Ajax*. Although much the same colour as *Peter Barr*, it is smaller and perfectly distinct from that variety. The main feature of the flower lies in its trumpet, which is widely expanded and beautifully frilled.

*Queen Christina* is another variety which was exhibited in capital form this year. It is an enormous bicolor, with a short firm trumpet of sulphur-yellow, which is broadly expanded and turned round at the apex. The sturdy perianth segments are a feature of the flower, and in colour are a pale primrose. It is said to be a strong grower and will prove most effective in the border.

It proves of interest nowadays to turn to the report of the Daffodil conference, held on April 1, 1884, and compare the list of varieties there given with those of the present day. In the white or sulphur-coloured trumpet section there are nine varieties mentioned, in addition to the three old ones—i.e., *N. cernuus*, *N. tortuosus*, and *N. albicans*—they are W. P. Milner, William Goldring, C. W. Cowan, Exquisite, F. W. Burbidge, Dr. Hogg, Rebecca Syme, *cernuus pulcher*, and Mrs. Burbidge. And, although these were in cultivation more than twenty years ago, they still find a place



THE NEW TRUMPET DAFFODIL MRS. HILLHOUSE.  
(MUCH REDUCED.)

was of sufficient size to be detached from the parent with safety. Although this beautiful variety will be many years before it can be seen in gardens, one is content to know that like many of the newer trumpet Daffodils it is a strong, robust grower, so that in the gardens of the generations to come it will no doubt prove of the greatest value. That the raiser of seedling Daffodils must have patience to ensure success is undeniable, and this is only a case in point, as seven years have elapsed since Mr. Pearson crossed *Emperor* with *Mme. de Graaff*—*Florence Pearson* being only one out of twelve other seedlings which resulted from the cross, and even now nine of these

in our gardens, and Messrs. Barr have only eliminated two of the varieties mentioned from their catalogue quite recently, these being F. W. Burbidge and Rebecca Syme. Of course, at the time of the *Narcissus* conference *Mme. de Graaff* had only been seen by a few, as in the description accompanying the coloured plate of that variety in Vol. LVI. of *THE GARDEN*, Mr. Burbidge tells us that it opened its first flower in April, 1883. With the hosts of new seedlings which every year pour into our spring shows many of our best varieties are being rapidly eclipsed, but no one can complain of a plethora of what are called white Daffodils. Indeed, *Mme. de Graaff* is



the only old variety which will stand in comparison with the six new varieties, Florence Pearson, Peter Barr, Warley Magna, Queen Christina, Mrs. Hillhouse, and Lady Audrey.  
ARTHUR R. GOODWIN.

### SOME RARE LILIES.

It is a matter for regret that with the exception of Japanese and a few other sorts used for forcing and cut flowers, the demand for the rarer kinds of Lilies has during the last few years considerably declined, and while during the time of 1880 to 1890 they enjoyed the greatest favour, and collections were grown in many private gardens, these lovely plants have to a great extent almost disappeared. The fault of this is perhaps mainly due to the trouble there is in establishing them permanently in gardens. Still, my experience is, although many Lilies require special though simple treatment, there are no real difficulties in the way of growing the hardy kinds. I knew an amateur at Catford who grew a collection of the best kinds of the Martagon group in a small back garden, and we have exchanged sorts, such as the now rare White Martagon Lily, *L. testaceum*, and *L. dalmaticum*; another amateur in a smaller garden in the apparently most unfavourable neighbourhood of Kentish Town had for many years such species as *L. bloomerianum magnificum*, *L. rubescens*, *L. Bolanderi*, and *L. Parryi* in rare perfection, and only lost them by discarding *Rhododendrons* and other protective shrubs. It should always be understood that as Lilies are forest plants, growing invariably on wooded hill-sides and getting shelter from sharp wintry frost by the shedding of the leaves in the first instance and then shelter against spring frost and the burning rays of the sun, while they are not too moist at the time of rest. Most of the Martagon group should be planted as early as possible in autumn, and in a well-drained loamy soil; some like humus. They rarely grow to perfection and flower well the first year, and when once doing well they should not be disturbed for several years, not until they show signs of failing, when division and transplanting is absolutely necessary. I find that bulbs coming from clumps grown for several years in the same spot are the easiest to establish again, being invariably quite healthy. The most interesting Lilies will always be those belonging to the Martagon group.

*L. Martagon album*, of which two kinds exist, one, rather inferior, is found wild in mountain forests on the Continent; it has flowers of a pale lilac or white colour, heavily spotted with maroon. The better kind of White Martagon is an English garden form found mostly in the Western Counties. It is easily distinguished from the Continental form in the light green, rather stout stem, and broad, light green leaves and creamy white large flowers.

*L. Dalhansonii* is a hybrid Lily, the result of a cross between *L. dalmaticum* and *L. Hansonii*. It is tall, vigorous, with brownish purple-spotted flowers. This form was raised by Mr. Powell, and another form raised in Dutch gardens by Van Tubergen and named *L. Marhan*, differs only in the lighter colour of the flowers. Both are now very rare in English gardens.

*L. Berensii* is an exceedingly rare and lovely Lily, the result of a most successful cross between *Lilium testaceum* and *L. chalcedonicum græcum*. The foliage is rather long, the bulb being like that of *L. testaceum*, and the flower is large, brick red colour, and with the sweet scent of *L. testaceum*.

*L. jankæanum*, a rare, shy-flowering Lily, being in habit very much like *L. Martagon* (not *L. pyrenaicum*), with large yellow flowers.

*L. albanum*, which was supposed to be identical with *L. jankæanum*, is quite different; it resembles much more *L. carniolicum* in bulb and foliage, but the colour of flower is bright yellow and not brick red as in *L. carniolicum*. Both kinds are very rare, and the collected bulbs, which are very expensive, arrive usually in poor condition and seldom grow. Although both these kinds are worth growing, *L. jankæanum* is the showier of the two.

*L. Martagon fl.-pl.*, next to *L. tigrinum, fl.-pl.*, is the best double-flowering Lily, the colour being a deep purple, much in the way of *L. dalmaticum*, and perfectly double. I am not aware of ever having seen it in English gardens, but saw it last year in a continental garden, although only in small quantities.

*L. chalcedonicum punctatum*, much prettier, larger flowered, and deeper coloured than both *L. chalcedonicum græcum* and *Heldreichi*, and heavily spotted with crimson. Very rare.

*L. testaceum* or *L. excelsum* is a hybrid Lily which originated in a German garden, and is the result of crossing *L. chalcedonicum* and *L. candidum*. Unless some means are found to keep this Lily it will soon be a plant of the past. In Holland, where it was once grown in large quantities, it has



LILIUM KELLOGGII.

(Three feet to 5 feet high. Flower segments 2 inches to 3 inches long, pale lilac faintly tinged with purplish blue and spotted claret colour, with a central line of yellow; stamens brown.)

almost disappeared, and even in central Germany, where twenty years ago bulbs were thrown out in the road owing to their abundance, it is becoming very scarce. It is one of the best of Lilies, and large healthy bulbs will produce as many as fifty flowers of a distinct nankeen colour sweetly scented similar to *L. candidum*.

*L. carolinianum*.—Until quite recently both *L. superbum* and a form of *L. pardalinum* were offered, and I even saw it figured in one of our leading works on Lilies, being nothing else than *L. superbum*, all under the first name. The plant, which I believe to be the true *L. carolinianum*, is now (the end of August) in flower. The bulb is similar to that of *L. columbianum* or *L. rubescens* and not rhizomatous, as in *L. pardalinum* or *L. superbum*; the stem is dark green, smooth,

rather slender, 3 feet to 5 feet in height; the leaves are thick, deep green, and arranged in single whorls of six to eight. The flowers are drooping, larger than those of the rather small flowering *L. columbianum*. The segments are bright orange-red, with the points much deeper coloured, while towards the centre the colour is bright yellow, dotted with maroon. The flowers are also sweetly scented, reminding one of *L. Parryi*. As a late flowering kind it is a most valuable acquisition, and must be classed among the best of hardy Lilies.

*L. polyphyllum* is one of the most distinct of Himalayan species, and not difficult to manage, only the bulbs are not lasting; they flower at the most in Europe twice or three times and then disappear, but ripen seeds plentifully. The peculiar long pointed bulbs when imported are usually dried up on arrival. The foliage is light green, and the white or pale lilac flowers are spotted purple or cherry red.

*L. callosum* is a Mandschurian Lily, and used to reach us sixteen or twenty years ago by way of Russia, and I flowered it several times. It is a slender growing species, with elegant small scarlet flowers on exceptionally long pedicels, reminding one much of *L. tenuifolium*.

*L. medeoloides* has very pretty bulbs with jointed, exceptionally long linear scales, almost pure white in colour, and turban-shaped brick-coloured flowers.

*L. pulchellum*, once very common, would be out of cultivation but for a recent reintroduction, however, under the name of *L. concolor*. It is very slender, with wiry stem and small erect bright scarlet and spotted crimson flowers.

*L. Kelloggii*, a beautiful new Lily, resembling in general character *L. rubescens*. It grows 3 feet to 5 feet in height, is of sturdy growth, and the sweetly scented flowers are turban-shaped and produced in a terminal raceme bearing from five to twelve. The segments are oblanceolate revolute, 2 inches to 3 inches long, pale lilac, faintly tinged purplish blue, and spotted claret, with a central line of yellow, stamens brown; exterior purple with a shading of lilac, a rather uncommon colour in Lilies. The shape and colouring of the flowers remind one of *L. polyphyllum*. Native of California. It was figured in THE GARDEN of May 11, 1901.

G. REUTHE.

### THE ROSE GARDEN.

#### IMPORTANT NEW ROSES.

A WELL-KNOWN rosarian writes and praises three new Roses raised by M. J. Pernet-Ducher, which are being distributed this autumn. M. Pernet-Ducher raised such beautiful Roses as *Caroline Testout*, *Mme. Abel Chatenay*, *Marquise Litta*, and many others.

**MME. PAUL OLIVIER.**—This is described as very vigorous, upright, with large bronzy leaves and long oval bud; the flower is very large, full, globular, and salmon, shaded with carmine-pink.

**MONS. LEDE.**—Also very vigorous and of branching growth, with fine deep green leaves, and very large, full, cupped-shape flower of a superb pink-carmine tint shaded with yellow. Very sweetly scented. Has a long season.

**SENATEUR BELLE.**—Very strong in growth, producing straight shoots; the leaves are light green, and the flower large, very full, and globular in shape. Its colour is described as rosy white salmon, the centre deep yellow, outer petals shaded with rosy carmine.

All three are Hybrid Teas.

#### WHITE ROSES NOW FLOWERING.

ELEGANT growth and total immunity from the marring effects of mildew, combined with fine



trusses of snowy white blossoms, are valuable traits in

AIMEE VIBERT.

It is just now, in spite of incessant rain, delightful on pillars, and is one of our best white autumn-flowering Roses. It will blossom best from laterals springing from other laterals, so that in thinning it is well to remember this. We might add much to our knowledge of how to prune if we closely inspected during summer and autumn the various flowering peculiarities of the different tribes and noted them for future guidance. Really interesting groups of white Roses for autumn display could be arranged by planting pillars of Aimée Vibert either in the centre or over a large bed, and by using varieties such as Coquette des Blanchés, which is best in order of vigour, followed by Boule de Neige, Baronne de Maynard, Mme. Alfred de Rougemont, and Mme. François Pitbet, mingled or in blocks. If space could be spared for two outer rings plant Souvenir de la Malmaison for one and Anna Maria de Montravail or Little White Pet on the extreme margin.

PHILOMEL.

### BEST ROSES OF THE SEASON.

In response to your note I send a list of the Roses that have done best this year in the Thames Valley (Sunning) and are still flowering freely.

Marie Van Houtte.—A glorious Rose in this village; its flowers this year have been superb for size and colour. All the plants have been full of bloom and are so still.

George Nabonnand.—One of the best Tea Roses ever raised.

Anna Olivier.

Mme. Yvonne Gravier.—An almost unknown Rose, very distinct in colour, white, touched with pink, the petals coloured like some beautiful shell, sweetly scented, very free, and flowers abundantly in autumn. It is not what the exhibitor would call a full Rose, as when the flower expands it shows the centre, but for gathering and to have in the garden it is most valuable.

Souv. de Catherine Guillot.

Mme. Chedane Guinoisseau.

Papa Gontier.

Princess de Sagan.—A glorious scarlet colour without purple in it.

Viscountess Folkestone.—Always good.

Hon. Edith Gifford.

Marquise de Salisbury.

Antoine Rivoire.—Another new Rose of beautiful colouring, salmon and yellow mingling. It is very free and good.

Caroline Testout.—This has been magnificent. The great fragrant pink flowers have been the admiration of many visitors. It is very lovely at this date (September 9).

Mme. Hoste.

Griess an Teplitz. — Delicious fragrance, good crimson colour, and in every way a free and robust garden Rose.

Maman Cochet.

White Maman Cochet.

Every one of these Roses is a great success, so free and as full of flowers now as in summer. Most of the above varieties have been recently described, so I have not given any description.

J. S.

## THE FRUIT GARDEN.

### MULBERRIES & MEDLARS IN THE ORCHARD.

ONE'S enjoyment of the garden would be greatly increased if the orchard, which is so often thrust away into a remote corner, were brought into direct communication with it. How easily the trim lawn spaces might lead, through groups of flowering shrubs, to the rather rougher grassy orchard. How naturally the garden Roses and masses of free-growing cluster Roses would lead to their near relations the Pears and Apples and other fruiting trees of the great Rose order.

There is no need to make a definite break between the two; it is all the better not to know where garden ends and orchard begins. Towards the edge of the mown lawn there may already be trees of Red Siberian Crab and the handsome Crab John Downie, and the pretty little Fairy Apple, while the nearer orchard trees may well be wreathed with some of the free cluster Roses, such as Bennett's Seedling or Dundee Rambler.

If the orchard is of some extent its standard trees of Pear, Apple, Cherry, and Plum may be varied by groups of three or four bush trees or by some of the beautiful fruit trees of lower growth, such as Medlar, Mulberry, and Quince. There may also be brakes of cut-leaved Blackberry and a thicket of Cobs or Filberts, and on some one side or perhaps more a shady Nut alley. There is no need to be always mowing the garden orchard. One wide, easy grassy way might well be kept closely shorn, but much of the middle and side spaces had better not be cut until hay-time. For many would be the bulbs planted under the turf, great drifts of Daffodils and Spanish Squills and Frillaries for the larger effects, and Colchicums and Saffron Crocus for the later months. If the grass was mown again in September, just before the Colchicums appear, it would allow of pleasant access to the fruit trees in the time of their harvest, and in those most interesting weeks just before the Apples ripen.

The usefulness of a small orchard when judiciously planted and well managed can scarcely be over-estimated, and every country house should possess one. To those who have families a small orchard is indeed a boon, and if planted with early, mid-season, and late varieties of Apples and Pears the happy owner is enabled to supply his children with delicious Apple puddings and pies for eight months in the year. Moreover, in plentiful seasons there are always more Apples, Pears, and Plums than can be used at home, and these if carefully picked and packed can be profitably disposed of at the nearest town. Then a small orchard can be tilled with the spade at small cost, and vegetables and choice small fruits, such as Strawberries, Gooseberries, and Black Currants, may be grown between the rows of fruit trees for several years, and thus the usefulness of the orchard is increased. In small gardens even space can generally be found for a small orchard, when a large one is quite out of the question.

### THE BEST EARLY PEARS.

For a succession of early Pears, from the end of July to the end of September, the following varieties are amongst the best. It is generally known that the time during which early Pears are to be had in good condition for dessert is very brief. It is well to bear this in mind at the time of planting, as only a small number of those should be planted in any moderate-sized garden, one or two at most of a sort being quite sufficient. Early Pears are best picked from the tree a day or two only before they are required for dessert, or as soon as they show any traces of turning colour. In the case of the early Pear it is fortunate that the whole crop does not ripen at once, the process extending over a fortnight or longer, so that with the careful gathering of the fruit as it shows signs of ripeness—and this it invariably does on the south side of the tree first—a succession of fruit for a fair length of time is secured even from one good sized tree. These early sorts are nearly all good bearers.

#### AUGUST PEARS.

*Doyenne d'Été*.—This is the earliest to ripen of any Pear we have, and for that reason alone is worth a place in the garden. The variety is hardy and prolific, and although the fruit is small it is very acceptable at that season, being "sweet and refreshing" and pretty to look at, the colour being a lemon-yellow, suffused with red on the sunny side. It succeeds best as a pyramid on the Quince stock. It is ripe at the end of July.

*Citron des Carmes*.—This hardy little Pear ripens soon after the above. It is one of the most prolific of Pears and very sweet flavoured. It succeeds as a standard in the orchard as well as a bush or pyramid. The skin is greenish yellow, with a tinge of warm brown on the sunny side.

*Beurré Giffard*.—This handsome red checked early variety is indispensable. It succeeds the two foregoing in close succession.



A MULBERRY TREE IN THE GARDENS OF SYON HOUSE, BRENTFORD, ONE OF THE RESIDENCES OF THE DUKE AND DUCHESS OF NORTHUMBERLAND.



It is of medium size and delicious flavour, slightly aromatic.

*Jargonelle*.—Amongst early Pears this is the best known. It may be grown in the form of a bush or pyramid in the garden, or as a standard in the orchard, and where it is desired to grow it to the highest state of perfection as to size, it succeeds admirably planted against an east or west wall. The tree is hardy and strong growing. It is also one of those rare sorts that succeeds as well in the Midlands and the North, if not better, than in the South. The only fault we have to find with it is that young trees do not bear freely. It should be grafted on the Quince.

For the latter end of August one of the most satisfactory is

*Beurré de l'Assomption*.—This is free growing, free cropping, and handsome. When eaten at the right moment it is of sweet and slightly aromatic flavour.

#### SEPTEMBER PEARS.

When we come to September Pears the choice is larger, and, as most of them are well known, and many of them described in the volume of *THE GARDEN* of last year under the heading of hardy fruit in season, a brief reference only will be made to them here.

*Williams' Bon Chrétien*.—This popular variety is indispensable. When grown on a wall the fruit may be had ripe late in August, but it is a true September Pear. It is well to have a tree or two on a west wall in order to have this Pear in season as long as possible, but the variety succeeds as well or better, especially as regards the latter quality, when grown as an espalier. This is the form of training I would generally recommend for the growth of this popular and valuable Pear.

*Brockworth Park*.—This greatly resembles the above, and by the novice may be mistaken for it. It is hardier and the more prolific of the two, and succeeds well as a pyramid or as a standard in the orchard. A good market variety, but its quality is inferior to Bon Chrétien.

*Souvenir du Congrès*.—One of the handsomest and largest of Pears, fine for exhibition; the flesh is melting and the flavour refreshing. Should be grown on Pear stock.

*Triomphe de Vienne*.—A comparatively new variety of great excellence. The tree grows and crops freely, the fruit is of large size, handsome, and the quality and flavour of the best.

*Marguerite Marillat*.—This is another variety of recent introduction and of Continental origin, and as a mid-September Pear has proved itself to be a real acquisition. It is one of the handsomest and most distinct, of large size, and the flavour is sweet. Towards the close of this month one of the best of all Pears is in season, I mean

*Fondante d'Automne*.—This is a delicious Pear, and must not be omitted from any collection. It succeeds well trained as an espalier or pyramid. It is also well worth growing against a west wall, as, grown in this position, the variety, unlike many Pears, is improved in size, quality, and flavour.

*Beurré d'Amanlis*.—One of the most prolific and useful of September Pears, succeeds well as a pyramid or even as a standard in the orchard; should be grafted on the Quince. O. THOMAS.

#### NOTES FROM BATH.

THE autumn flower show—so frequently marred the last few years by inclement weather—proved a decided success, and was visited by over 11,000 persons. Fuchsias, always a strong feature at this show, were splendidly exhibited, as also were Roses, considering the season. Especially worthy of mention was a magnificent bloom of Frau Karl Druschki, the new white H.P. I can vouch for this Rose being a good grower, as in July last I saw it doing well in Messrs. J. R. Pearson and Sons' nurseries at Lowdham, where it seemed almost to be a semi-climber. One of its parents is that grand Rose Caroline Testout, the other being Merveille de Lyon, and Mr. Peter Lambert, the raiser, has named it after the wife of the president of the German Rose Association. Another

feature of the show was a fine stand of garden Roses, exhibited by Messrs. Cooling, their Crimson Bedder, which is quite in the first rank of single Roses, being particularly striking. Hardy plants, more especially Phloxes and Pentstemons, were shown in wonderful variety by Messrs. Isaac House and Son, and the quality left nothing to be desired. Quite a break in Phloxes is Mme. Neera, one of Messrs. Lemoine's 1901 novelties, both spikes and flowers being enormous, and the colour a low tone of silvery white, edged with palest lilac. It is certainly a most striking variety. Subsequently I had the pleasure of seeing plants of it in Messrs. House's nursery, where I found that none were more than 2 feet high. Another very beautiful variety with huge flowers is Pharaoh, which is a pretty shade of lilac-rose, with a conspicuous white centre. But the finest of all these new varieties which I have yet seen is Roger Marx, a semi-dwarf grower, with most brilliant orange-scarlet, purple-eyed flowers. Mr. J. C. House considers this to be one of the finest Phloxes yet raised, and, after seeing a batch of it in full bloom at Westbury, I can thoroughly endorse his opinion; in fact, this one even surpasses Miss Pemberton in brilliancy of colouring.

Visitors to Bath cannot fail to notice the numerous parks—some of them only quite recently laid out—which almost surround the city. The climate is especially favourable to the growth of such things as *Olearia Haasti*, *Berberis Darwinii*, Sweet Bay, Veronicas (especially *V. salicifolia*), and other shrubs which are tender in the North and Midlands. One has only to visit the Botanic Garden to secure further evidence of this fact. On the occasion of my visit some of the *Cistus* were still very beautiful, notably *Cistus algarvensis*, which forms a low bush of grey-green foliage, studded with bright yellow flowers, each of which has a brownish black spot in the centre; and *Cistus villosus*, with sage-green foliage, straggling habit, and flowers of a crimson-pink with yellow centre. Another lovely shrub which proves perfectly hardy is *Hydrangea alba rosea*, a very rare and beautiful plant, with crimson-pink and white flowers. One does not often meet with the tender *Cassia corymbosa* planted in the open garden, yet at the time of my visit it was attracting more attention from visitors than anything else, and its shining green foliage and the corymbs of rich yellow came in for general admiration. This shrub is a native of Buenos Ayres, and requires a warm and sheltered situation. Mr. Milburn's method of culture is to plant it out at the end of May in a compost of sandy peat and leaf-mould; at the end of September it is taken up, and, after the growths have been cut back almost to the old wood, it is wintered in a greenhouse.

Another uncommon feature in the Botanic Gardens was an elegant group of plants of the aromatic Californian evergreen *Diplacus glutinosus*, and bearing orange-red blossoms with orange centres. These plants, like the *Cassia*, are wintered in a greenhouse and planted out in early summer. In the rock garden there is always something to interest, and although summer had merged into early autumn, many charming plants were still in bloom. Campanulas were represented by a very beautiful dwarf form of *Campanula glomerata*, which was discovered a year or two ago growing wild at Sevenoaks by Lady Inshington. A new plant from Michigan, said to be a *Helianthemum*, but not yet named by the Kew authorities, was a mass of blossom. Unlike the other *Helianthemums* this requires a damp spot and partial shade. The plant was a perfect mass of deep lemon-yellow flowers with reddish stems and narrow dark green foliage. Other plants in bloom included *Convolvulus mauritanicus*, the yellow flowered *Dianthus Knappii*, *Dianthus neeanus* from Roumelia, with grassy foliage and little white finely cut flowers; *Antirrhinum glutinosum*, the Himalayan *Sedum trifidum* with prettily serrated leaves and crimson-pink blossoms; *Asperula suberosa*, with woolly grey foliage, and small pink flowers shaped much like those of a *Bouvardia*; *Incarvillea variabilis* with a few rose-pink blossoms and Pyrethrum-like foliage; *Malvastrum*

lateritium, invaluable for clothing a dry bank; *Cyclamen neapolitanum*, just peering above the ground; and *Enothera speciosa rosea*, whose foliage had turned to crimson, and was considerably brighter than the rose-coloured flowers. In the bog garden the most conspicuous plant was *Senecio pulcher*, resplendent in purple-crimson and gold. Its flowers are really gorgeous, but the plant seems to be little grown, which is probably owing to its "miffy" character. Many other plants and shrubs were in bloom in this delightful garden, such as the Linums and graceful Sea Lavenders, *Hypericums*, Veronicas, with spikes of many coloured flowers, not to speak of hosts of Pentstemons, Japanese Anemones, Phloxes, and other gay autumn flowers. Though much of the interest attaching to this garden is due to its sheltered situation and the mild climate, the care and attention bestowed upon it by Mr. Milburn the superintendent has made it one of the most picturesque and at the same time instructive of our botanic gardens.

ARTHUR R. GOODWIN.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE PRIMROSE AND DARWINISM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Allow me, please, to make a few observations on a review of the above book, which appeared in your columns on July 26. My delay in replying to it at an earlier date is due to its not having been brought to my notice until some little time after it had appeared, and when holiday time had already commenced.

The reviewer says that the title—"The Primrose and Darwinism"—is "scarcely appropriate, as 'Darwinism' is always understood to be Darwin's theory of the origin of species by means of natural selection." With respect to this point of appropriateness of title I venture to differ from his opinion. The leading points discussed in the book are the validity of Darwin's views on dimorphism and trimorphism in the Primrose and other flowers, and the general decided superiority of cross-over self-fertilisation in the floral world. These theories originated with Darwin. They form one of the pillars—and not an unimportant pillar—of his theory of natural selection. They are quoted at large, as supporting that theory, in his "Origin of Species." They have been adopted generally by his followers, and hence any evidence against their validity, which the Primrose amongst other flowers gives, is an evidence against Darwinism in one branch at least, and the title, therefore, is amply justified.

The reviewer states that I have "not proved experimentally" the value of the atmospheric agencies—sun, dew, wind, &c.—in the fertilisation of flowers. "His conclusions, therefore," he says, "though plausible, are *à priori* assumptions." I would ask what was the need for my experimenting to prove the benefit of the full play of atmospheric agencies, especially as I state that I distrust (and give grounds for my distrust) artificial experiments? I cannot see, even if I did experiment, how I could give stronger evidence than that which I have given from Darwin's own experiments with the Red Clover, the common Broom, umbels of Cowslips, and the Purple Loosestrife, &c., that sterility, from the partial or more complete exclusion of atmospheric agencies, is the result of the interposition of a close-meshed net. Such a conclusion when the flowers under the net are sterile, and other flowers closely outside the net are fully productive, and that, too, in cases when they could not be affected by any action of bees, is not based upon "*à priori* assumptions," but is a case of direct induction. Huxley says: "Science is nothing but trained and organised common-sense." All that is required in this case is, not additional experiments, but merely the



exercise of that scientific faculty. The last point that I wish to notice is the final remark of your reviewer: "It is a pity this book was not published in the seventh decade of the last century, instead of appearing nearly thirty years after the date of Darwin's book, viz., 1876."

Now the justification for "The Primrose and Darwinism" "appearing nearly thirty years after the appearance of Darwin's book" is that the errors of Darwin on the points mentioned are unfortunately still current amongst those who follow him, and not only amongst his professed followers, but with others who have not adopted his views in entirety. So current still are Darwin's views about the points mainly discussed in "The Primrose and Darwinism" that even Sir Joseph Hooker, as quoted in the preface of the book, enunciated Darwin's views on the heterostylism of the Primrose as valid before the august assembly which met at Oxford for the inauguration of the Darwin statue at the Oxford University Museum as recently as June, 1899. Many other instances of Darwin's views about heterostylism and the decided superiority of cross- over self-fertilisation

## CUTTING THE FOLIAGE OF HARDY PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Under this heading your correspondent Mr. J. Crook (page 162) raises a most important question, which is certainly worthy of further discussion. I must confess that I have often hesitated as to whether or not it is correct to cut Pyrethrums and Delphiniums close to the ground soon after flowering. I think that little harm results provided that each plant is well watered and given a good dose of liquid manure immediately after being cut down. It must be remembered that this process amounts purely to a system of double cropping, in that the plants are expected to produce flowers and foliage anew, and if extra nourishment is not supplied they are bound to be weakened, and next year's growth suffers accordingly. Then, again, it is a great mistake to cut down the stems immediately after flowering and apply a mulch of manure, which is the stereotyped instruction usually given in nurserymen's catalogues. In the first place, supposing this plan is

as Messrs. Kelway would give this advice if it were harmful. At the end of August I paid a visit to Messrs. House and Son's nursery at Westbury-on-Trym, and was delighted to see a large patch of Delphiniums in full bloom. On enquiring from Mr. J. C. House as to the treatment to get this late blooming, I was informed that the first spikes of bloom were cut off before they had developed, in order that the plants might produce fresh ones in time for the autumn shows. I can testify to the excellence of the spikes, and the plants were vigorous, and certainly did not look weakened in any way by this method of treatment.

Certain plants suffer much more than others from bleeding when cut—notably, *Rodgersia podophylla*. Only this spring the leaves of this plant were badly injured by the late frosts, and I removed some of them in the hope that fresh ones would be thrown up. I was careful to give the clump some liquid manure, and eventually new foliage appeared, but not before the plant was severely weakened by bleeding for nearly a week at the places where the first leaves had been removed. On the whole, I feel bound to adopt the conclusion formed by Mr.

Crook, i.e., that this cutting down process must be a check to the roots of the plants. It would be a great help if other correspondents would give their experience on this most interesting subject. As regards such things as *Montbretias* I can most thoroughly endorse all that your correspondent has written as regards the value of leaving the foliage to protect the roots. On cold soils in the Midlands one hears frequent complaints of these plants being killed during the winter, and the best way to prevent this is to leave the foliage intact and place some sods of peat over the clumps.

ARTHUR R. GOODWIN.

## PLANTS FOR LIGHT SANDY BORDER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I wish to make a border to grow herbaceous plants to bloom spring, summer, and autumn. Soil light sandy, depth about 18 inches, resting on gravelly sub-soil, situation high and open. There are no large trees near. Should like to know how to treat the soil and the best plants to choose.

PERENNIAL.

[The best way is to group the plants. Three rows would be ample in the width named, but of course they must be quite informal. This may be modified, however, by stretching a line lengthwise of the border, say through the middle, and by planting this first. Arrange the front and back groups in proportion. We advise this way because duplicates of some of the taller and bolder things for the back may not be necessary owing to the

great size of the plants, while quantities will be required of those in front. Again, by adopting this informal grouping convenient places will occur between the first and second rows for the introduction of such bulbous plants as Daffodils, Scillas, Muscarias, Gladiolus, &c. As the width of border is not great we suggest only three of these informal rows, and these for convenience we will call "main rows." In this way the bulbous plants can be inserted here and there as opportunity offers and as a sort of filling up or finishing touch generally.

Of the things for the central row plant, say, three or four in each group. If the former, then a rough triangular plan will be best, directing the longer point of the triangle to the front and leaving the straight line facing the back row. This arrangement naturally appears formal when setting down the plants, but the growth soon alters it.

As to the treatment of the soil, which you say is light, dig it as deeply as possible. If very sandy and light a layer of quite fresh cow manure may be placed in the lowest trench and covered with soil. Then cover up with soil to 9 inches deep



AN OLD MEDLAR TREE ON FRINGE OF GARDEN. (See page 201.)

in the floral world generally, in the more popular botanical writings of to-day cannot assuredly have escaped the notice of your reviewer.

As Darwin's views on the points referred to above are still upheld by his immediate followers, and are still unfortunately misleading in some instances, as evidenced by their writings since 1876, even those who are not professedly his followers, it is evident that though it would have been better (and in this the author quite agrees with the reviewer) to have pointed out the errors into which Darwin fell at an earlier date, yet it is better for the true interests of botanical science to do so now rather than not at all. Moreover, it often requires, in this as in other fields of research, some time to detect errors, especially when they are covered by a great name. Still, when detected, as the writer of a review of "The Primrose and Darwinism" says (*The Pilot*, May 31): "If an observer carefully made and carefully recorded his observations, we feel sure that were Darwin alive he would be amongst the first to recognise it."

THE AUTHOR OF "THE PRIMROSE AND DARWINISM."

carried out, what takes place? Take, for instance, a Delphinium which has just finished blooming; the plant is full of sap, which is rushing up to the seeds in order to enable them to mature properly. No one could possibly think that this flow of sap can be suddenly diverted, and if anyone chooses to examine a Delphinium shortly after its unripe stems have been cut down they will find that for some time afterwards it will continue to bleed.

Mulching, too, is useless if, as is often the case, the ground around the plants whose stems have been removed is perfectly dry. To those who wish to cut their plants down I would say give not only a mulch and some thorough soakings of water but liquid manure as well. This year the water has not been required, but the manure has all the same.

Of course there is a great difference of opinion on this question of cutting down; indeed, Messrs. Kelway advocate for Delphiniums and Pyrethrums exactly what Mr. Crook condemns. Referring to these latter plants, Messrs. Kelway say: "The plants may with advantage be cut down after June, which proceeding will induce a more prolific succession of bloom through the autumn." Yet one would hardly suppose that such good growers



and add a further layer of manure of six months' standing. By first taking out a trench 2 feet wide across the border and as deep as possible you will be able to treat the border as suggested. The double layer of manure is, however, only needful where the soil is excessively light. At the same time, the bottom layer of manure, placed low and trodden down, is most helpful, as it is cooling during dry seasons. Otherwise a heavy layer placed 12 inches deep would suffice in the ordinary way.

You will find the following a useful selection of plants, and we name those for the back row first. Six kinds of Delphiniums, such as Life Guardsman, conspicua, Lavender, Royal Standard, splendissima, and Landseer, Kniphofia corallina, K. nobilis, and K. aloides, Aster Nova-Anglie pulchella, A. N. A. rubra, and A. N. A. W. Raynor, Helenium autumnale grandiflorum, Harpalium rigidum, Helianthus multiflorus and its varieties H. m. fl.-pl., H. m. maximus, and H. m. Soleil d'Or, Bocconia cordata, Galega officinalis and G. alba, Anemone japonica and A. j. alba, Rudbeckia purpurea, Lupinus polyphyllus, L. p. albus, and L. p. bicolor, \*Lilium tigrinum Fortunei, \*L. t. splendens, and \*L. candidum, Lathyrus latifolius and L. l. albus, Spiraea Aruncus and S. astilboides, Aquilegia chrysantha, Heliopsis laevis major, Echinops ruthenicus, Centaurea ruthenicus, Campanula lactiflora and C. l. coerulea, Buphthalmum cordifolium, Helenium grandicephalum striatum, Eremurus himalaicus and E. robustus, Eryngium alpinum, Anchusa italica, Helianthus H. G. Moon and H. tomentosus. The above range from 4 feet to 5 feet high.

In the central portion you would be able to plant Paeonies (these, however, in single examples), and in about six kinds, distinct shades. For other good things we suggest Gaillardias, Aster Amellus hessarabicus, A. A. Riverslea, Rudbeckia Newmanii, Achillea mongolica, A. The Pearl, Anemone sylvestris, Erigeron speciosus, Campanula carpatica, C. c. alba, C. rhomboidalis, C. glomerata dahurica, C. Van Houttei, Heuchera sanguinea, hybrid Columbine, Primula denticulata, P. cashmiriana, Thalictrum aquilegifolium, Incarvillea Delavayi, Veronica subsessilis, Lychnis haageana, L. chalcodonia, Erodium Manescavi, Agrostemma coronaria, Anthericum, Alstromeria aurea, Geranium armenum, Geums in variety, Hemerocallis flava, H. Thunbergii, H. Middendorffii, Scabiosa caucasica and S. c. alba, Polemonium Richardsonii, Coreopsis lanceolata, Statice latifolia, and say six kinds each of single and double Pyrethrums, at least six kinds of Flag Irises, and the same number of Phloxes, together with Delphinium Belladonna, which is among the most charming of all flowering plants of medium growth. In the interstices between the groups you could plant English and Spanish Irises, Gladiolus, Narcissus in at least a dozen kinds, avoiding the double white Poet's kind, that is not likely to do much in your case. You may also make a show with a dozen sorts of border Carnations, selecting self colours and free and hardy as well as fragrant kinds.

Then for the front row you could have a great choice in dwarf Campanulas, such as pumila, alba, turbinata, G. F. Wilson, Hendersonii, and muralis, and in single and double Pinks, any of the dwarf Phloxes, also P. divaricata, P. ovata, P. amena, Lychnis Viscaria rubra pl., Arnebia echioides, Onosma tauricum, Anemone apennina, A. fulgens, A. robinsoniana, Enothera macrocarpa, Arabis alpina fl.-pl., Gentiana acaulis, Armerias (Thrifts), Aquilegia coerulea, Tiarella cordifolia, Primula cortusoides, Veronica prostrata, Zauschneria californica, Iris pumila in variety, I. nudicaulis, and many other things. Very pretty effects, too, are the outcome of introducing such bulbous things as Muscaris, Chionodoxa, Crocus, Scillas, Fritillarias, the hardy Cyclamen, Iris Heldreichii, I. reticulata, and such like.

Finally, we can only suggest that you make a beginning on paper, executing a rough plan of positions, and in this way place your colours in some sort of order. If you retain the plan, you can as the subjects flower mark on it that number o-and-so and so-and-so must change places in the autumn. In this way you will also note the

improvements likely to be made, also those seasons in which you have only a small display. In your soil you could plant the border in September or October, the latter suiting the greatest number of things named. Bulbous plants are marked with an asterisk.—Eo.]

## FLOWER SHOW FANCIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In answer to your correspondent, most certainly is the cultivation of a variety of plants, and as large a variety as possible, a perfectly legitimate form of gardening. My only contention is, that it does not always make for beauty, particularly in the small garden.

I should like to add that Mr. Barr's nursery must not be taken as an example of the "tailor's pattern-book." It is just the other way. He has ample space at his command, and he revels in the wild and free. It was, in fact, the sight of his rock plants—some of them quite homely things—so happily growing and spreading in masses, over and among the boulders of rock and stone, by the side of a running stream, contrasted with his "samples" of plants as seen in the same month at the Temple flower show that suggested my article. I made a bee-line from the Roses to the rock plants on purpose to see how these plantlets could be arranged for the best.

Mr. Barr's "pattern-book" (of course he must have one) will be found set out in the form of small pots, in the semi-shelter of open frames, where they look so tempting and are so portable that it is impossible to help running off with more sorts and kinds than one's rockery will hold. It is a question for individual taste whether we will do justice to a few varieties or take a greater interest and pleasure in sheltering a larger variety, which we shall have to keep thinning out, for most rock plants have a wonderful way of spreading.

F. A. B.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

WINTER-FLOWERING ZONAL PELARGONIUMS.

PLANTS of these may now be removed from the frames to the house in which they are to flower, and given a light and airy atmosphere with a night temperature of about 55°. The pots should be well washed, the surface freed from weeds, and the plants staged thinly. Let them have full sunshine, as a well-matured growth is necessary. Weak liquid manure and soot water should be given three times weekly. Show and fancy Pelargoniums that were cut back and have made new shoots about 1 inch in length should be shaken out and repotted in pots two sizes smaller than those they have been growing in. Good turfy loam, charcoal, and sand, with some dried horse manure, form a good mixture. When potted place the plants in a frame and keep them near the light. Watch carefully for aphids, and destroy it at once or it will spread rapidly.

CHRYSANTHEMUMS.

It is too early to house the general collection. Much depends on the weather, but generally from the 25th of the present month until the first week in October will be early enough in most localities. Some varieties require moving inside earlier than the dates named. When the flowers begin to show their colour the plants should be removed under cover. Before their removal inside thoroughly examine the plants for mildew and dust with black sulphur. Remove all dead leaves and wash the pots clean. Avoid overcrowding. Allow the plants sufficient space for light and air to pass freely amongst them or the foliage is sure to spoil. Fumigate the plants three successive evenings to make sure all insect life is destroyed. Manure water must be given; that made from cow and sheep manure, with occasional applications of such

manures as Clay's Fertilizer and Peruvian guano for a change, in my opinion is the best. Great care must be exercised in feeding and watering at this season. Manures when in the hands of incompetent men will soon do irreparable damage. When the plants are housed give them abundance of air night and day in favourable weather.

AZALEAS.

These may now be moved inside as wet weather is likely to make the soil in the pots sour. If there is the least sign of insect pests thoroughly wash the foliage with soft soap and water, syringing afterwards with clean soft water. The pots should be well washed and the plants placed in a cool light and airy house. Soot water will assist in swelling up the buds. Camellias may be treated similarly.

PRIMULA SINENSIS.

These may be transferred into their flowering pots as desired, but never shift them until the pots are full of roots, and always pot the plants firmly up to the collar, being careful not to damage the leaves in any way. They should be placed in a well-ventilated frame and kept close to the glass. Primulas should be grown as hardy as possible, but must be protected against damp and cutting winds.

CINERARIAS

will require similar attention as regards potting. The fact that Cinerarias are hardy and of rapid growth delays the potting too long. Immediately the pots are well filled with roots, shift on into larger sizes. As a general rule, 6-inch pots are large enough for decorative plants, but for large specimens 11-inch or 12-inch will be required. To grow them well one must always be on the alert for enemies; mildew is often troublesome. On its first appearance dust the foliage and soil with flowers of sulphur; for aphids vaporise with XL All. When tobacco smoke is employed, frequent light fumigations should be given. On no account may these plants be subjected to heavy smoking. For this operation the leaves should be quite dry and a calm evening chosen.

CALCEOLARIAS

should be potted into 3-inch pots as growth demands. A rich, light, porous soil and efficient drainage are essential at all stages. Place the plants near the glass in a frame, and keep close for a few days, after which the more air that can be given the better. Water carefully and shade from the sun. Fumigation is a certain cure for green fly, but it is best used as a preventive.

SHADING MATERIALS.

The season is now nearly over for shading many plants, so that when the material is quite dry take down the blinds. Label and mend them now, as this will save much time and trouble when they are again required.

Wexham Park, Slough.

JOHN FLEMING.

## THE FRUIT GARDEN.

TREATMENT OF RIPE GRAPES.

THE air of houses containing ripe fruit should be dry and free ventilation given at all times when the weather is favourable, a little being left on at night when the weather is dry outside. If it is desirable to water inside borders before the fruit is gathered do this in the morning of fine days, and during damp weather keep up a circulation of warm water through the pipes, but guard against too warm a temperature, which would encourage red spider, detract from the colour of black Grapes, and cause them to shrivel. As soon as the fruit is gathered give inside borders a thorough watering with properly diluted liquid manure, which, if the foliage is healthy, will assist bud development. Thoroughly free the foliage from red spider and dust by syringing it with clear soot water or a suitable insecticide, such as soluble petroleum, if it is necessary, always bearing in mind that one of the most important points in Grape culture is to preserve the foliage in a perfectly healthy state until it falls naturally. Keep future lateral growths



moderately suppressed, and if the wood is not sufficiently matured maintain a warm airy atmosphere until it is satisfactory, when gradually admit air.

LATE MUSCAT HOUSE.

The fruit in this house is usually expected to carry on the supply until the beginning of the new year, and it should be now almost ripe; for unless it is perfectly ripened under the influence of the sun, together with a buoyant atmosphere, it will neither be of the best quality nor keep well. Therefore where the fruit is late, means should be taken to hasten its maturity by careful ventilation of the house, and by reducing the ventilation secure the sun's warmth. Use sufficient artificial heat to keep the night temperature from falling below 65°. During dull or wet weather keep the hot water pipes in the day time just warm, and at all times regulate the atmospheric moisture to suit outside conditions. The borders must always be uniformly moist, carefully avoiding anything approaching saturation. This will keep the roots active and prevent shrivelling of the berries. Keep young growths closely stopped, and in cases where a slight shading has been used in order to prevent leaf scalding it should now be removed. If wasps are troublesome cover the open spaces caused by ventilating either with wasp or hexagon netting.

VINES IN POTS.

Young Vines that were cut back before being started early in the year should be now placed out of doors in a favourable sheltered position, where they can be either secured to a wall or trained horizontally over a border covered with ashes to benefit fully by the sun's influence. The soil must not be exposed to a heavy rainfall, and remove the lateral growths entirely at the same time. Carefully preserve the chief foliage to assist in developing the buds and in ripening the wood, so essential to ensure fertility. When the leaves fall shorten the canes to suit the trellis upon which they are to be trained for fruiting, and well wash them with a suitable insecticide. As a precaution against bleeding the wound should be dressed with styptic, and the Vines be perfectly rested in a cool, freely ventilated house until required for forcing.

T. COOMBER.

The Hendre Gardens, Monmouth.

THE KITCHEN GARDEN.

FRENCH BEANS.

MAKE good sowings of Ne Plus Ultra and Canadian Wonder in 8-inch pots, also in heated pits, allowing sufficient room only for the growths to develop between the glass and the soil, as these will require all the light possible to ensure a free set. Use a compost of two parts fibrous loam, two parts leaf soil, and sufficient road grit to keep it open. As the young plants appear give air freely to promote a sturdy short-jointed growth.

LEeks.

The main crop should be well earthed up, but to ensure perfect blanching strips of brown paper should be loosely tied round them. Leeks like plenty of water at all seasons, and before applying the soil make quite sure that the roots are in a moist condition.

BEETROOT.

Owing to the frequent rains this crop has made more growth than usual, and the large growing kinds will in many cases become too large for general use if allowed to remain longer in the ground. This should be pulled and stored in a cool place in sand or ashes either in the open or root room, when it will keep just as well as if left till the generally recommended time for taking it up.

CeLERY.

Continue to take advantage of fine weather for earthing up the plants. For some reason or other a large percentage of the earlier sowings have run to flower this season. Many complaints have reached me as to this from various parts of the country. This is no doubt owing to the check

it received after planting, as the bad weather experienced then would not allow it to start away into growth freely. Cold frames should now be got ready for receiving crops which have to be wintered in them, such as Cauliflowers, Lettuce, Endive, and Parsley. The soil used for this should not be too rich or the growth made will be too soft and sappy to stand through a severe winter. Allow a good distance between the plants, keep them near the glass, and plant firmly.

CABBAGE.

Make good plantations of spring Cabbage at intervals in various parts of the garden as the plants become fit. Allow a distance of 2 feet and 2 feet 6 inches, according to the variety, between the rows, and 12 inches from plant to plant. Water in to settle the soil about the roots, and place a small ring of finely-sifted cinder ashes around each plant.

TURNIPS.

These have seldom been better than they are this season. The quality, owing to the free, quick growth, is all that can be desired. When the bulbs are of fair size pull and store them thinly, placing sand or ashes between each layer. Make another good sowing on ground of a fine tilth, and strew the surface with soot and wood ashes.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.

NOTES FROM THE NORTH.

THE EDINBURGH SHOW.

IN extent, in variety, and in quality generally the exhibition of the Royal Caledonian Society, held in the Waverley Market, Edinburgh, on September 10 and 11, left but little to be desired. When, however, one thinks of the splendid effect made by such exhibitions as the Temple show, the Shrewsbury floral fête, and other large provincial shows, one realises that the great Edinburgh horticultural exhibition was very much lacking so far as its general appearance was concerned. Examined in detail it was no doubt a splendid exhibition of British produce, but looked at as a whole it had a dull, uninteresting, and even patchy appearance. Down the centre of the market hall was arranged the least creditable feature of the show, namely, the specimen plants. These were not first-class, yet they had allotted to them the most important position in the hall. The groups of hardy flowers, of miscellaneous stove and greenhouse flowering and foliage plants, undoubtedly the most generally interesting exhibits in the show, were arranged, one might almost say hidden, around the sides of the hall. If at the recent show the displays made by Messrs. Cocker and Sons, Laird and Sons, J. Forbes, Cunningham, Fraser and Co., and others had been in the positions occupied by the specimen Crotons, Fuchsias, Dracenas, &c., how totally different and how much improved would the general effect have been.

It is gratifying to know that the earnest efforts of the council and committees are being rewarded. There were no less than 2,440 entries from 305 exhibitors, 125 of whom did not compete last year. In some cases, however, the exhibitors failed to come forward, the reason chiefly being due to the damage done to crops by the recent storm. There were no competitors in the nurserymen's class for the best collection of hardy flowers, those who had entered having withdrawn. The collections and the single dishes also of Apples and Pears were very poor, the fruits were small and almost colourless. All three prizes for the collection of twelve varieties of Apples came South, and two of them to the county of Hereford. For a similar collection of Pears, the prizes were again awarded to exhibitors from England. The first prize for a decorated dessert table also came South, Mr. Dawes, Ledbury Park Gardens, being the winner; he was, however, only third for decoration. There was only the narrow margin of half a point between the winning table and the second prize one arranged by Mr. D. Kidd.

The best feature of the show was undoubtedly provided by the exhibits of Grapes. The Muscats of Alexandria were not remarkably good; in fact, some were very bad, but the black Grapes were splendid. The varieties Muscat Hamburg, Mrs. Pince, Gros Colman, and Lady Downes were represented by some perfect bunches. One of the best bunches in the show was the first prize one of Lady Downes, shown by Mr. David Murray, Culzean Castle Gardens. It was not surprising to notice in the class for the best flavoured white Grapes that, out of seven bunches shown, five were Muscat of Alexandria. Worthy of note also is the fact that for the best flavoured black Grape the three prizes were awarded to bunches of Muscat Hamburg; Black Hamburg and Madresfield Court were the only other varieties shown in this class. The Grape which carries the best bloom would appear to be Cooper's Black, since the three prizes went to this variety in the class for black Grapes with the best bloom.

It is interesting to note that the first prize for a new Grape introduced since 1885 was given to Messrs. Buchanan, Kippen by Stirling, for their Diamond Jubilee. As shown here it was totally different from Cooper's Black, a variety with which its name has often been linked. The berries bore a greater resemblance to Madresfield Court than to any other variety, but they were larger and blacker. The second prize for a new Grape was given to the variety Prince of Wales, a sport from Mrs. Pince, sent out, I believe, by Messrs. Veitch of Chelsea. Only one bunch of the variety Lady Hutt was to be seen in the show, and Appley Towers was not represented at all.

Messrs. Rivers' exhibit of fruit trees in pots attracted much attention, and their dishes of orchard-grown Apples and Pears were immeasurably superior to those exhibited in the competitive class for similar produce. Messrs. Dobbie and Co., Rothesay, N.B., in their grand display of Dahlias had some new decorative varieties, semi-double, medium-sized flowers, splashed and striped with many colours, and which have the merit of lasting when cut. Messrs. Dobbie also showed a new Chrysanthemum, Horace Martin, a yellow sport from Marie Masse; Mr. John Forbes, Hawick, showed some grand Pentstemons; and Messrs. Croll, of Dundee, had masses of a lovely white Phlox, which was unnamed.

Of new plants we noticed Juniperus Richardsonii, a pretty conifer, represented by plants about 2 feet high. In colour the shoots are a light grey-green and dark green at the base. This plant was shown by Messrs. R. B. Laird and Sons, Edinburgh. Carnations Lady Nora Fitzherbert and Sir R. Waldie Griffith were noticeable amongst Messrs. Laing and Mather's splendid group of Carnations. The first-mentioned is quite a dwarf plant, not more than 6 inches high; it is a seedling from Germania, and is equally adapted for greenhouse or bedding. The flowers are similar to those of Germania, large and very freely produced. Sir R. Waldie Griffith is a lovely flower, a beautiful orange-scarlet colour. A good pale yellow border Carnation named Lady Stewart was shown by the raiser, Mr. John H. Cumming, Grantully Castle, Aberfeldy, and obtained an award of merit. Mr. Hugh Dickson, Belfast, obtained a first-class certificate for Rose Marchioness of Abercorn, a lovely flower of bronzy sulphur colouring. Messrs. D. and W. Buchanan had a most interesting collection of Grapes, containing several new varieties. One named Forth Vineyard, a good-sized round berry and large bunch, the committee considered meritorious, and would like to see it again. At the luncheon given to the judges, committees, and others, over which Mr. R. V. Mather most ably presided, Mr. Hugh Dickson, jun., of Belfast, voiced a thought that must often have been in the minds of many. He remarked that whilst the efforts of the visiting exhibitors were usually recognised and appreciated, those of the local nurserymen often were altogether forgotten. It is, however, to the help extended by local men that the Edinburgh show owes much of its attraction, and it is doubtful if they benefit to nearly the same extent as do exhibitors from a distance.

A. P. H.



## SOCIETIES.

## ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

THE annual exhibition of this society was held in the Waverley Market, Edinburgh, on September 10 and 11. Despite the unsettled weather the show was well attended. The best feature of the exhibition was the display of Grapes, the black varieties being especially fine. Roses were very good, and the hardy flowers, too, considering the recent severe storm. The plants were not of particular merit, and the hardy fruit was small and colourless. Vegetables were well shown. Mr. Murray Thompson, S.S.C., the energetic secretary, was responsible for the arrangements. Notes upon the show, from a Southerner's point of view, appear in another column.

## FRUIT—GARDENERS AND AMATEURS.

Dessert table, decorated with plants, flowers, and foliage: The first prize was won by Mr. James Dawes, gardener to M. Biddulph, Esq., Ledbury, Hereford, who gained 93 points. The table was but thinly arranged with fruit, but it was none the less effective for that. The Grapes were fairly good, the variety Lady Hunt being shown, the Peaches were splendid, the Pears very good, the Figs also, while the Nectarines, Plums, and Melons were of the first quality. For decoration this exhibit was third, obtaining 15 points. Montbretias were chiefly used. Mr. D. Kidd, gardener to Lord Elphinstoun, Carberry Towers, Musselburg, won the second prize, being only half a point behind with 93. The Grapes were superior to those in the winning exhibit, the Pears were very good, but most of the other dishes of fruit were small. The first prize for decoration was awarded to this table, it gained 24 points. The centre piece was of *Gloriosa superba*, Francoa, Lily of the Valley, with a few beautifully coloured Rose buds, and the smaller glasses were similarly arranged. Mr. Robert Cairns, gardener to James Martin White, Esq., Balmudry, was third, showing some good fruit. The second prize for decoration was awarded to Mr. William Smith, Oxenford Castle Gardens, with 17 points.

For a collection of ten dishes of fruit, Mr. James Dawes, gardener to M. Biddulph, Esq., Ledbury Park, Hereford, was first. The bunches of Muscat Grapes were very long but lacked finish. Peach Sea Eagle, Nectarine Stanwick Elrige, and Melon Ne Plus Ultra were good. Mr. David Murray, Culzean Castle Gardens, was second. He had a splendid Melon (Boyd's Eureka) and good Spencer Nectarine. Mr. Smith, Oxenford Castle Gardens, was third.

For a collection of twelve dishes of hardy fruit (Scotland only), Mr. James Day, gardener to the Earl of Galloway, was first. The fruits were of good quality, being well coloured but small. Mr. A. C. Binnie, gardener to Sir W. Gardiner Baird, Bart., North Berwick, was second, with very good specimens; Mr. William Harper, gardener to J. R. S. Richardson, Esq., Bankfoot, Perth, third.

For a similar exhibit, grown in an orchard house, Mr. James Beisant, Long Forgan, was first. He had good, well coloured Apple Emperor Alexander, Pear Souvenir du Congrès, Spencer Nectarine, and Large Early Apricot. Mr. James Dawes, Ledbury Park Gardens, was second, showing splendid Kirke's Plum, Barrington and Dymond Peaches, Humboldt Nectarine. Mr. R. Greenlaw, Kelwin, was third. Twelve Peaches: First, Mr. Robert Glen, Larbert House Gardens, Stirling, with splendid Sea Eagle; second, Mr. J. K. Brown, Dunnikier Gardens, Kirkcaldy, with Barrington, very good; third, Mr. James Dawes, Ledbury Park Gardens, Hereford, with Barrington also. There were many other entries.

Twelve Nectarines: First, Mr. James Dawes, with fine Humboldt; second, Mr. T. Lunt, with good Pineapple; third, Mr. D. Murray, with the same variety.

Twelve Apricots: First, Mr. William Galloway, Gosford, with Large Early; second, Mr. George Mackinlay, showing Moorpark; third, Mr. A. C. Binnie, North Berwick.

Twelve purple Plums: First, Mr. A. Findlay, gardener to Count A. Munster, Uckfield, Sussex, with Kirke's; second, Mr. J. Dawes, Ledbury, Hereford; third, Mr. A. Harvey, Ayr.

Twelve red Plums: First, Mr. A. Findlay; second, Mr. R. G. Sinclair, Coryalton Gardens, Drew; third, Mr. G. Mackinlay.

Twelve yellow Plums: First, Mr. George Mackinlay; second, Mr. James Gibson; third, Mr. M. Haldane, Beckenham, Kent.

Twelve Plums: First, Mr. J. Dawes, Hereford; second, Mr. John Cairns, Coldstream; third, Mr. J. McFarlane, gardener to Captain Grant.

Collection of culinary Pinnas: First, Mr. James Gibson, Danesfield Gardens, Bucks, with excellent Archduke, Pond's Seedling, &c.; second, Mr. A. Harvey, gardener to J. H. Houldsworth, Esq., Ayr; third, Mr. George Mackinlay, Wreast Park Gardens, Amptill.

Collection of dessert Pinnas: First, Mr. George Mackinlay, Jefferson and Transparent Gage being the best dishes; second, Mr. A. Harvey; third, Mr. James Gibson.

## GRAPES.

Six bunches of Grapes: First, Mr. Thomas Lunt, Keir House Gardens, Dunblane, with almost perfect bunches, all splendidly finished. Black Hamburg, Madresfield Court, and Muscat of Alexandria were the varieties shown. Messrs. D. and W. Buchanan, Kippen, by Stirling, were a good second. Alicante was shown by them very finely, and the Muscats were also good. Mr. James Beisant, Longforgan, was third. There were three other entries.

Four bunches of Grapes: First, Messrs. D. and W. Buchanan, Kippen, with splendid Alnwick Seedling, Diamond Jubilee, Alicante, and Cooper's Black, all splendidly finished. Mr. James Day, Garlieston, was second, showing finely finished Muscat of Alexandria, and Mrs. Pince and Muscat Hamburg were good also; third, Mr. James Beisant, Longforgan.

Two bunches of Muscat of Alexandria: First, Mr. James Day, Garlieston, with well coloured bunches; second, Mr.

D. Kidd, Carberry Tower Gardens, with not very shapely bunches; third, Mr. W. J. Green, gardener to Sir C. M. Palmer, Bart., M.P., Grinkle Gardens, York, with huge ungainly bunches.

Two bunches of Black Hamburg: First, Mr. Thomas Lunt, Keir House Gardens, with bunches of good size and well coloured; a good second, Mr. J. Fairholm, gardener to Mrs. Younger, Alloa; third, Mr. Robert Glen, Larbert House Gardens, Stirling, who also showed well. There were thirteen more entries.

One bunch of Muscat of Alexandria: First, Mr. J. J. Wann, gardener to Lord Balfour of Burleigh, with a good bunch; second, Mr. Green, Grinkle Gardens, York; third, Mr. R. Cairns, Balmudry.

One bunch of Black Hamburg: First, Mr. T. Lunt, with a magnificent bunch of good size, large berry, and perfect finish; second, Mr. J. Fairholm, Alloa; third, Mr. D. Kidd, Carberry Tower Gardens, both of whom showed well. There were seventeen more entries.

One bunch of Alnwick Seedling: First, Messrs. D. and W. Buchanan, Kippen, with a grand bunch; a very good second, Mr. John Leslie, Pitcullen House Gardens, Perth; third, Mr. W. J. Green, Grinkle Gardens, York.

One bunch of Alicante: First, Messrs. D. and W. Buchanan, with a very large bunch, well finished, though of small berry; second, Mr. James Day, Garlieston, with a good bunch carrying a splendid bloom; third, Mr. T. C. Sutherland, Polmont.

One bunch of Gros Colman: First, Mr. R. Stuart, Thirlstone Castle Gardens, with a bunch of perfect finish; second, Mr. John Paterson, gardener to John Barry, Esq., Kirkcaldy; third, Mr. J. McPherson, gardener to Miss Raffin, Mayfield.

One bunch of Lady Downes: First, Mr. David Murray, Culzean Castle Gardens, with a beautiful bunch; second, Mr. D. Buchanan, gardener to Colonel the Hon. North D. Hamilton, Dailly; third, Mr. D. Kidd, Carberry Tower Gardens, both showing well.

One bunch of Madresfield Court: First, Mr. Robert Glen, Larbert House Gardens, Stirling, with a splendid bunch, though the berries were somewhat red; second, Mr. T. Lunt, with a smaller, well-finished bunch; third, Mr. Shanks, Strathearn, Grahamstown.

For one bunch of any new Grape introduced since 1885, Messrs. D. and W. Buchanan, Kippen, by Stirling, were first with Diamond Jubilee; Mr. Thomas Lunt second with Prince of Wales (a sport from Mrs. Pince); third, Mr. D. Buchanan, Dailly, with Diamond Jubilee.

One bunch of the finest flavoured Black Grape: First, Mr. Thomas Lunt, with Muscat Hamburg; second, Mr. J. Beisant, gardener to Mrs. Armistead, with the same variety; third, Mr. M. B. McDonald, Longwood Gardens, Longholm, also showing Muscat Hamburg.

One bunch of the finest flavoured white Grape: First, Mr. William Galloway, Gosford; second, Mr. John Potter, Whitehall, Cumberland; third, Mr. A. Angus, Motherwell, all showing Muscat of Alexandria.

Black Grape, for finest bloom: First, Mr. T. C. Sutherland, Polmont, with Cooper's Black; second, Mr. John Leslie, Pitcullen House Gardens; third, Mr. D. Murray, Culzean, both with the same variety.

## APPLES.

Collection of Apples: First, Mr. R. M. Whiting, Credenhall, Hereford, with fairly good specimens, Lord Suffield being the best; second, Mr. W. H. Tolhurst, gardener to A. D. Kleinwood, Esq., Bolemore, Sussex, his Duchess of Oldenburg, very finely coloured; third, Mr. M. Roe, gardener to E. W. Caddick, Esq., Caradoc, Hereford.

Collection of Apples (grown in Scotland): First, Mr. James Day, Garlieston, with fairly good fruits; second, Mr. David Murray; third, Mr. D. Nicoll, Forgandenny.

Six varieties of Apples: First, Mr. James Dawes, Ledbury, Warner's King and Tyler's Kernel being good; second, Mr. George Mackinlay, Wreast Park Gardens, Amptill; third, Mr. M. Roe, Caradoc Gardens, Hereford.

Six dessert Apples: First, Mr. R. M. Whiting, Credenhall, Hereford; second, Mr. James Day. There were no entries in the class for a seedling Apple not in commerce.

The chief prize winners in the classes for single dishes of Apples were Messrs. R. M. Whiting, M. Roe, James Dawes, John Lee, William Galloway, Alexander Findlay, D. Murray, Adam Shakelton, A. Dickson, Andrew Harvey, James Day, R. Lawrie, R. G. Sinclair, D. Buchanan, M. M. Haldane, W. H. Tolhurst, J. Paterson, R. R. Greenlaw, George Edgar, James Beisant, Alexander Lauder, and John Cairns.

## PEARS.

Collection of Pears (grown in Scotland): First, Mr. William Galloway, Gosford, Marguerite Marillat, Souvenir du Congrès, and Dr. Jules Guyot were the best; Mr. R. R. Greenlaw, gardener to H. J. Younger, Esq., Kilnurn, was second, and Mr. David Murray, Culzean Castle Gardens, third.

Collection of Pears: First, Mr. Alexander Findlay, Uckfield, Sussex, with fairly good fruits. The best were Dr. Jules Guyot, Williams' Bon Chrétien, and Duchess d'Angoulême; second, Mr. James Gibson, Danesfield, Bucks; third, Mr. James Dawes, Ledbury, Hereford.

The chief prize winners in the single dish classes for Pears were Messrs. Alexander Findlay, David Murray, James Dawes, James Gibson, R. R. Greenlaw, Andrew Harvey, William Galloway, John Paterson, John Cairns, R. G. Sinclair, L. McLean, Adam Shakelton, A. Hutton, and A. Dickson.

## PLANTS.

For a group of miscellaneous plants within a circle of 18 feet diameter, Mr. Adam Knight, gardener to Peter Wordie, Esq., Lenzie, was first. His group, which was lightly and tastefully arranged, was composed chiefly of Crotons; interspersed between them were dwarf Caladiums, Ferns, Begonias, Primulas, Dendrobiums, &c. A plant of *Areca lutescens* was in the centre. Mr. G. Wood, gardener to James Buchanan, Esq., Oswald House, Edinburgh, was second, with an exhibit not nearly so attractive.

Four stove plants: First, Mr. John Thorn, gardener to Mrs. Hutchison, Carlisle; second, Mr. G. Wood, gardener to James Buchanan, Esq., Oswald House; third, Mr. McKenna, gardener to Sir John Usher, Bart., Ratho.

Two Crotons: First, Mr. Thomas Lunt, with large well-coloured plants; second, Mr. Adam Knight.

Three Fuchsias: First, Mr. William Aitken; second, Mr. A. Aitken.

Two Dracenas: First, Mr. George McKenna, Ratho; second, Mr. Thomas Lunt; third, Mr. John Thorn.

Four exotic Ferns: First, Mr. Robert Stewart, Murrayfield; second, Mr. G. Wood, Oswald House Gardens, Edinburgh.

## CUT FLOWERS.

Twelve Gladioli: First, Mr. A. Bennett, Tile House, Tweedmouth, with very good flowers; second, Mr. Robert Lawrie, gardener to M. Smith, Esq., Prestwick; third, Mr. Thomas Young, Hartridge, Jedburgh.

Six Gladioli: First, Mr. A. Bennett; second, Mr. Robert Lawrie; third, Mr. John Prosser, Carstorphine.

Twelve show Dahlias: First, Mr. Thomas Robertson, Eastwood, Thornliebank, who showed very well; second, Mr. Robert Sutherland, Auld Aisle, Kirkcintilloch; third, Mr. W. Veitch, The Cemetery, Carlisle.

Twelve Cactus Dahlias: First, Mr. Thomas Robertson; second, Mr. Robert Sutherland; third, Mr. William Govenlock, gardener to Colonel Scott, Wishaw. All showed well, and there were several more exhibitors.

Twelve bunches Sweet Peas: First, Mr. Adam Shakelton, The Graze Gardens, York, with a very good lot; second, Mr. Thomas Duocan, Fogo School House, Duns, whose flowers were good also; third, Mr. Roderick Mackenzie, Strathspey.

Six bunches of Sweet Peas: First, Mr. Adam Shakelton; second, Mr. A. Malcolm, The Elms, Duns.

Twelve Roses: First, Mr. Lawrence Black, Cardenden, Fife, with good blooms; second, Mr. William Parlane, Rosslea Row; third, Mr. Charles Dickson, Corstorphine.

Twelve Tea Roses: First, Mr. Parlane, Rosslea Row; second, Mr. J. D. Bennett, Helensburgh.

Six vases of Roses: First, Mr. Alfred E. Todd, Musselburgh; second, Mr. W. Parlane; third, Mr. David Fraser, Crumond House Gardens.

Twelve bunches hardy herbaceous flowers: First, Mr. Adam Brydon, Tweedbank, Ioverleithen, with an excellent lot; second, Mr. A. Dickson, gardener to M. Thorburn, Esq., Inverleithen.

## NURSERYMEN.

Twenty-four hardy evergreen shrubs: First, Messrs. Cunningham, Fraser and Co., Comely Bank Nurseries, Edinburgh; second, Messrs. James Dickson and Sons, 32, Hanover Street, Edinburgh.

Thirty-six Gladioli: First, Messrs. George Mair and Son, Prestwick, with a splendid display.

Collection of Dahlias: First, Messrs. M. Campbell and Son, High Blantyre, who had a varied exhibit of excellent blooms; second, Mr. Wm. Gold, Durhambank, Wishaw, with smaller blooms.

Eighteen bunches Cactus Dahlias: First, Messrs. M. Campbell and Son, with some beautiful flowers; second, Mr. John Sutherland, Victoria Nursery, Lenzie.

Twenty-four show Dahlias: First, Messrs. M. Campbell and Son, High Blantyre, showing very well; second, Mr. J. Smellie, Pansy Gardens, Busby. Mr. J. Smellie was first for twelve fancy Dahlias; and Messrs. Campbell and Son second.

Twenty-four bunches of Chrysanthemums: First, Messrs. M. Campbell and Son. Twelve vases of Carnations: First, Messrs. M. Campbell and Son; second, Mr. John Forbes. For twelve vases of Picotees, Messrs. Campbell were again first.

## NURSERYMEN—ROSES.

Thirty-six Roses: First, Mr. Hugh Dickson, Belfast, with some beautiful blooms, notably Mrs. John Laing, Her Majesty, Dr. Andry, Mme. Eugene Verdier, &c.; second, Messrs. D. and W. Croll, Dundee, whose stand also contained some fine flowers; third, Messrs. Alexander Dickson and Sons, Limited, Newtownards.

Eighteen Roses: First, Messrs. Alexander Dickson and Sons, Limited, with excellent Mildred Grant, Tom Wood, Alexander Dickson and Sons (seedling), &c.; Messrs. D. and W. Croll, Dundee, were a close second; third, Messrs. W. and R. Ferguson, Brucefield, Dunfermline.

Twelve Roses: First, Messrs. W. and R. Ferguson; second, Mr. Hugh Dickson, Belfast; third, Messrs. Alexander Dickson, Limited, Newtownards.

Twenty-four Tea Roses: First, Messrs. D. and W. Croll, Dundee, with a nice lot, notably good were Medea, Maman, Cochet, Mme. Lambert, and others; second, Messrs. Adam and Craigville, Rubishaw, Aberdeen; third, Messrs. Alexander Dickson, Newtownards.

Twelve scarlet or crimson: First, Messrs. Alexander Dickson and Sons, Limited, with Charles Lefebvre; second, Messrs. D. and W. Croll, Dundee, showing Alfred Colomb; third, Messrs. Ferguson, Dunfermline, with the same.

Twelve Pinks: First, Messrs. Croll, with lovely Mrs. W. J. Grant; second, Mr. Hugh Dickson, Belfast, with excellent Mrs. John Laing; and third, Messrs. Alexander Dickson and Sons, Limited, with the same variety.

Twelve white: First, Messrs. Croll, Dundee; second, Messrs. Alexander Dickson, Newtownards; third, Messrs. Adam and Craigville, Aberdeen, all showing Bessie Brown.

Twelve vases of Roses: First, Messrs. Ferguson, Brucefield, Dunfermline, with a pretty display; second, Messrs. D. and W. Croll, Dundee.

Collection of Roses: First, Messrs. James Cocker and Sons, Aberdeen, with a beautiful display; second, Messrs. D. and W. Croll, Dundee; and third, Messrs. Alexander Dickson, Newtownards.

## VEGETABLES (OPEN).

Collection of twelve kinds: First, Mr. James Gibson, Danesfield Gardens, Bucks, with a very fine lot. The Onions, Cauliflowers, Tomatoes, Potatoes, and Celery were excellent. Second, Mr. John Waldie, gardener to W. H.



Cambridge; and Roberts, Limited, Birmingham.  
Silver-gilt medals.—Messrs. Dobbie and Co., Rothsay,  
N.B.; Mr. J. T. West, Tower Hill, Brentwood; Messrs.  
Isaac House and Son, Westbury-on-Trym, Bristol; Messrs.  
Blackmore and Langdon, Twerton Nurseries, Bath; and the  
Hobbies, Limited, for Roses.

Silver medals.—Mr. J. Walker, Thame, Oxon; Messrs W. H. Cutbush and Son, Highgate, N.; Messrs. T. S. War Limited, Feltham; and Mr. Eric Such, Maidenhead.



Certificates of merit were awarded to the following:—

#### CACTUS VARIETIES.

From Mr. William Treseder, Cardiff.—Charm and Minnie West.  
From Messrs. J. Stredwick and Son, St. Leonards.—Eva, Vesuvius, H. J. Jones, and Etna.  
From Hobbies, Limited, Dereham.—Red Cap and Winsome.  
From Messrs. Keynes, Williams and Co., Salisbury.—Mrs. T. Cherry and Prince of Orange.  
From Messrs. J. Burrell and Co., Cambridge.—Enchantment and Albion.  
From Mr. S. Mortimer, Farnham.—Manxman.

#### SHOW DAHLIAS.

From Mr. William Treseder.—Mrs. W. Treseder.  
From Messrs. Keynes, Williams and Co.—Gold Mantle and Henry Clarke.  
From Mr. St. Pierre Harris.—A. M. Burnie.

#### EAST ANGLIAN HORTICULTURAL CLUB.

This progressive club had a largely attended September meeting, Mr. J. Powley was in the chair, Mr. T. B. Field occupying the vice chair. The exhibition tables were taxed to the utmost with flowers, fruits, and vegetables in the monthly competitions, and some creditable specimens were to be seen amongst them. The cup presented by Mr. C. W. Daws was secured by Mr. C. H. Hines, gardener to Garrett Taylor, Esq., Trowse, with the largest number of points in the aggregate of three competitions, whilst Mr. E. C. Ramus, Hethersett, secured the silver bowl presented by E. T. Boardman, Esq., Town Close, Norwich, for three monthly competitions.

In the non-competitive exhibition Mr. G. Daniels had a pretty arrangement of a new single Dahlia raised by himself. The variety has a deep incision in the centre of each petal, giving it a unique appearance; the floral committee gave it a first-class certificate. Mr. G. Davison had another seedling perennial Phlox of good merit, named Westwick Scarlet, with brilliant-hued flowers. This also received a first-class certificate. Mr. Davison had also a bunch of the new *Helianthus mollis* and *Montbretias* in profusion, including some blooms of Germania. During the evening two essays were read, the first by Mr. H. B. Dobbie upon "The Fertilisation of Flowers," and the other by Mr. E. Yeomans upon "My Experience with the Cultivation of the Mushroom." Mr. Dobbie dealt with his subject in a very able manner, his botanical knowledge serving him in good stead, his explanation of the work of the stamens, pollen, stigma, and ovary were keenly followed. A capital discussion followed at the close of each paper.

#### BIRKENHEAD.

THE horticultural show held in conjunction with the Wirral and Birkenhead agricultural exhibition on the 10th and 11th inst., was held in the new grounds at Bebington, which cover 22 acres, and have cost, with the building, £23,000. Undoubtedly when completed this will prove one of the best show grounds in the country. The position allotted to horticulture is not at all suitable, the permanent felt roof being far too dark to allow of the beauties of foliage and flower to be seen. The entries were very satisfactory, numbering 1,100, or double those at the last exhibition. The exhibits generally were below the average, vegetables excepted; these were both strong in numbers and good in quality.

#### PLANTS.

For the group arranged for effect, not to exceed 60 square feet, Mr. H. Ogden, West Derby, was a good first, Palms and Crotons occupying the apices of small grounds composed of good Ferns, Geraniums, Begonias, *Francia ramosa*, &c. Mr. S. Haines, gardener to E. K. Laird, Esq., Birkenhead, was a good second.

Ten stove and greenhouse plants: The same exhibitor was first, his best plants being Croton and Alocasia. Three stove and greenhouse plants in flower: First, Mr. H. Ogden; second, Mr. J. Bryn, gardener to E. F. Peel, Esq. Three foliage plants: Mr. Haines had again the best, followed by Mr. G. M. Steeves. One Palm: The first and second were Mr. L. Cookson and Mr. S. Haines.

In connexion with the various exhibits it is to be regretted that the committee do not enforce the regulation that all must be named.

#### CUT FLOWERS.

These were in great quantity, and proved highly interesting. Six Roses: Mr. S. Bell won with good blooms, and Mr. J. Davis for three blooms.

Twelve Cactus Dahlias: Mr. H. Banks led with good blooms, holding a similar position for six varieties.

Twelve Dahlias other than Cactus: First, Mr. H. Banks. Mr. John Clarke won for six varieties.

For a stand suitable for table decoration, John Ennion, Esq., won in a good competition. C. J. Procter, Esq., secured the chief awards for hand bouquet, bouquet of hardy flowers and for three ladies' aprays.

The class for twelve bunches of flowers grown in the open brought a grand display, Mr. J. Lee coming out at the top. J. Ennion, Esq., held a similar position for six bunches.

#### FRUIT.

Mr. O. Roberts, Tarporey, had the best collection, consisting of white and black Grapes, Peaches, Figs, Nectarines, Melons, and Apricots; Mr. C. Jones was second.

Six kinds of hardy fruits, not more than six of any kind on each dish: In this class were four disqualifications, many staging upwards of fifty cherries, fifty bunches of Currants, &c. The wording of this should be altered, as six fruits of Gooseberries, for instance, which one exhibitor staged, form too meagre a lot. A. J. Oakshott, Esq., had the best.

Mr. E. Stokes had the best Black Hambrug Grapes, and Mr. O. Roberts for any other black won with Black Alicante. For two Muscats, Mr. W. Gaunt, gardener to P. Walker, Esq., was first; and Mr. T. Ferguson, gardener to Mrs.

Paterson, won for any other white, with richly-coloured Buckland Sweetwater. Mr. H. May, gardener to C. Gatehouse, Esq., had the best Peaches, and Mr. O. Roberts the best Nectarines. Mr. T. B. Kendall had the leading scarlet flesh Melon, and Mr. E. A. Young the green flesh.

Vegetables were altogether a fine lot; unfortunately, the tent was much too small, the result being that half the exhibits were on the floor and many under the stage. In the classes for collections the wording is such that it results in much extra labour being given to the judges, by stating that "not less" than a certain number be staged, a distinct number would be better both for the exhibitor and the judges.

Collection of vegetables, not less than eight kinds: First, Mr. Edward Alty, Ormskirk, with fine Cauliflowers, Potatoes, Onions, Leeks, &c.; Mr. W. Mackerall was second. For not less than six kinds, Mr. Henry Jones was the winner.

Mr. W. Millington, Bromborough, had the best dozen Tomatoes, Mr. J. P. Platt the best six, and Mr. Stanley Clark won for six yellows, a fine lot of fruit throughout.

Mr. J. Taylor, Malpas, had the best twelve white round Potatoes, Mr. J. Bradshaw, Higher Behington, the best twelve coloured. Mr. J. Davis, Leominster, was first for white Kidneys; and Mr. J. R. Carter, Chester, had the best twelve coloured Kidneys.

#### NON-COMPETITIVE EXHIBITS.

Mr. J. Webster, Wavertree, secured the society's silver medal for an exhibit of a tenant's greenhouse, showing also a capital addition for a villa residence, boilers, &c. Messrs. Dicksons, Chester, exhibited herbaceous cut flowers, Palms, &c.; Mr. H. Middlehurst, Liverpool, Sweet Peas, vegetables; and Mr. W. H. Shilton, West Derby, greenhouses and frames; Mr. Mason showed a tenant's greenhouse, &c.; Mr. McHattie, Chester, cut Gladioli; Mr. G. Smith, Birkenhead, border flowers, Dahlias, &c.; Mr. W. Rowlands, West Derby, Cactus Dahlias, &c.; Mr. G. Jones, Birkenhead, conifers, Clematis, &c.; and Mr. H. Eckford, Wem, Cactus Dahlias, Verbenas, &c. Mr. A. H. Edwardson, secretary, supervised the whole exhibition.

#### NATIONAL AMATEUR GARDENERS' ASSOCIATION.

THE monthly meeting took place at Winchester House, Old Broad Street, E.C., on Tuesday, the 2nd inst., at seven o'clock in the evening. The chair was taken by Mr. Bland G. Sinclair, who, after the usual business had been got through, called upon Mr. T. W. Sanders, F.L.S., the president of the association, to give his lecture, entitled "How Plants Grow and Feed." The lecture was exceedingly interesting, and made especially so by the series of diagrams, which were enlarged by the aid of a good lantern. The lecturer has given considerable attention to the subject of his discourse, and in consequence a profitable evening was spent by the members present on this occasion. A splendid show was arranged in the great hall of Winchester House. In the vegetable department the chief contest was for the Carter trophy, value £10 10s. There were only two competitors, but the quality of their produce was exceptionally good. The competition was for six varieties of vegetables, distinct. Half a point divided the two displays, the leading exhibit coming from Mr. George Hobday, Romford, Essex, his Cauliflowers, Potatoes, Peas, and Carrots being of great merit, the display, as a whole, being set up in splendid style. Mr. F. M. Vokes, Southampton, was an uncomfortably close second, his Peas, Tomatoes, and Onions being very good. Grapes, Apples, Pears, and Plums were freely shown, which goes to prove the comprehensive character of the contents of the members' gardens. Flowers are always well shown, and the subjects staged on this occasion embraced a charming variety. Six competitors set up collections of six bunches of hardy flowers, distinct, and charming were their displays. Mr. D. B. Crane secured leading honours, with large and handsome bunches pleasingly arranged. Mr. F. M. Vokes, Southampton, was placed second with smaller bunches of beautiful subjects. Dahlias in variety, annuals, Gladioli, besides many flowers grown under glass, were freely displayed. There were several competitions in which the winner of the highest aggregate in number of points is determined at stated periods of the year, and these classes were unusually interesting. On October 7 next Mr. S. Hillman will give a lecture on "The Lily Family." The secretary is Mr. F. Finch, 117, Embleton Road, Lewisham, London, S.E.

## ANSWERS

## TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Names of plants.**—W. L. B.—Cotoneaster frigidula. —Miss O.G.—Please name enclosed flower. It comes from a place thirty or forty miles south of Tangiers and has been flowered in a pot. It is thought to be a kind of Narcissus from bulb and manner of growth. The finder and owner

knows of a much bigger kind quite close to Tangiers with the same peculiar odour. He has several pots of these small bulbs, and all are flowering now and very pretty. [The Narcissus is *N. serotinus*.]

**Names of fruit.**—Goodfellow.—1, King Harry; 2, Golden Spire.—W. H. G.—1, Cox's Orange Pippin; 2, Cox's Pomona; 3, Fearu's Pippin; 4, Crimson Costard; 5, Cornish Gillyflower; 6, Beurré Clairgeau.—C. L. Adams.—1, Stubbard; 2 and 3, Keswick Codlin; 4, Keswick Codlin improved; 5, Pearson's Plate; 6, Pear Bergamotte d'Esperen; 6, Lord Suffield; 7, Nelson's Codlin; 8, Hambleton denx Ans; 10, Pear Benrre Bosc.—[We shall be very pleased to name any fruits sent to us during the coming fruit season.]

**Galls on Metrosideros** (H. D. PALMER).—The growths on the stem of your *Metrosideros speciosa* are not galls of any kind but young flower buds, which apparently are more or less abortive.—G. S. S.

**Peter's Wreath.**—In THE GARDEN of August 16 M. P. Forster asks for the botanical name of Peter's Wreath. I believe it is *Petrea volubilis*, and I am supported in this by Bailey's "Cyclopedia of American Horticulture," to which I have just referred.—A. HERRINGTON, Madison, N.J., U.S.A.

**Lilium candidum not succeeding** (FRANCES).—The malformation of the flowers is probably due to insufficient ripening of the bulbs or from their being grown in a too rich soil. The addition of sand to the soil might be beneficial. A variety called monstrum is in cultivation, with flowers similar to the one sent. Your plants may be that variety; if so it is doubtful whether the flowers can be altered.

**Violet plants collapsing** (W. H. G.).—The well-grown specimen of Violet plant sent for our inspection has been suffering from an attack of red spider, which quickly reduces the health and strength of the plants, and if not destroyed soon renders them of no value. The cause of collapse, however, in this case is a clean puncture cut through the root-stem of the plant, and is clearly the work of wire-worm or some other destructive pest. We would advise our correspondent to lose no time in taking up his plants and placing them in their winter quarters for flowering; the roots may then be examined and the enemy, if found, destroyed.

**Iris with Myosotis** (A. M. S.).—To a certain degree this depends on the age and condition of the latter plant, which, if established, commences its flowering towards the end of May. It is, however, not in its best condition for some fortnight longer, and then a large array of the Flag Irises are in flower. What you should avoid chiefly would be those nearest to typical germanica, all of these being early in bloom. Any of the *squalens*, *variegata*, or *aphylla* sections would do quite well, and of these we give a selection: *Pallida*, *Pallida dalmatica*, and *Imogene* are nearly 3 feet high, shades of the most exquisite sky and pale blue, quite indispensable; Mrs. H. Darwin and *L'Innocence* are the best whites; Dr. Bernice and *Arnolds* are bronzy copper and dark shades; *aurea*, *Chelles*, and *Abon Hasson* are gold and crimson; *Flavescens*, *Darius*, *Gracchus*, and *Ganymede* are paler yellow shades with crimson markings on the lower petals; *Mme. Chereau* is white with violet pencillings; *Walner* is a good azure blue; and *Queen of May* and *Telegraph* are very beautiful in warm tints of lilac-rose. Indeed, the above contain some of the very cream of the Flag Irises, than which in the month of June there are no more beautiful flowers.

#### QUESTION.

**Bulbs and field mice.**—Can you suggest anything to prevent Bulbs being eaten by field mice? We are close to a wood, and though there are owls in plenty yet the mice hold their own. Would dressing with red lead or paraffin have any ill effects on bulbs, Crocus, Hyacinth, Tulip, &c., or can you suggest a remedy?—GOODFELLOW. [Would some reader who has had similar experience help our correspondent.—ED.]

#### CATALOGUES RECEIVED.

**Bulbs.**—Messrs. Daniels Brothers, Limited Norwich James Cocker and Sons, 130, Union Street, Aberdeen; H. Cannell and Sons, Swanley, Kent; Edmondson Brothers, 10, Dame Street, Dublin; Barr and Sons, Covent Garden, London; John Russell, Richmond, Surrey; Robert Pringle, 40, Belvoir Street, Leicester; William Bull and Sons, King's Road, Chelsea; Dicksons, Chester; James Carter and Co., High Holborn, London; William Sampson and Co., Kilmarlock; W. Smith and Son, Aberdeen; Ant Roozen and Sons, Overveen, near Haarlem, Holland; Pope and Son, King's Norton, Birmingham.

**Plants.**—East Anglian Plant Company, Great Totham, Witham, Essex; Carl Sprenger, Vomero, Naples, Italy.

**Trees and Shrubs.**—Muskauer Baumschulen, Muskau, Lausitz.

## OBITUARY.

### M. CHARLES JOLY.

M. JOLY, the honorary vice-president of the National Horticultural Society of France, died, we regret to learn, on August 25, at the age of eighty-four years. M. Joly had invented a system of heating which he patented, and which is now in use. M. Joly had received the Cross of the Legion of Honour for his services. His death deprives the society of an eminent and devoted member, who had rendered valuable help during many years.



# THE GARDEN

No. 1610.—Vol. LXII.]

[SEPTEMBER 27, 1902.]

## SCHOOL GARDENS IN GERMANY.

THE Board of Education has lately issued a reprint of a special report on certain German school gardens visited last year by Mr. T. G. Rooper, one of His Majesty's Inspectors of Schools, which furnishes much food for thought, and we would gladly direct the attention of our readers to this suggestive pamphlet.

For nearly a century past Germany has been alive to the supreme importance of training the children of agricultural districts in the intelligent cultivation of the land, and has been advancing year by year towards the attainment of this momentous end. We have some account in these fifty odd pages of interesting details of the garden schools of various grades which are established, at no wide intervals, up and down the entire length and breadth of the country. We are told of the opportunities offered at well-equipped horticultural centres to landowners who can attend within easy distance of their homes courses of instruction in forestry, vine culture and fruit growing, landscape gardening and horticulture, no less than to elementary teachers, farmers, and professional gardeners, the latter classes being assisted by Government grants for expenses and fees when they are unable themselves to defray the cost of such practical education. We also learn that a large proportion of elementary village schools are provided with garden ground where the elder children are trained in the grafting and management of fruit trees, of vegetables, and of flowers—not omitted—as are best suited to the conditions of the particular district. Even town schools, it would seem, are not left out of the general scheme, and have their allotted garden plots. The whole treatise, in fact, goes to prove the old adage that "an ounce of practice is worth a pound of theory." Book work—valuable as it is and dear to the heart of the schoolmaster—is barren and unproductive while divorced from the labour of the hands. We gather that in Germany, as in England, the trend of public feeling, especially amongst working people, is to lower the dignity of labour; for the difficulty there, in spite of all the advantages offered by Government, is to find good practical teachers. Hence the school garden itself has tended in many instances to "become a means of illustrating botanical studies rather than

gardening." But wherever a clever and enthusiastic practical teacher has been established in any given district—as in the admirable elementary school at Geistingen, in the valley of the Sieg, and in the Westphalian village of Celsberg on the Ruhr—the great benefit of systematic garden training is clearly to be traced in the improved comfort and prosperity of the inhabitants of the locality.

A significant fact is worth noting, that those districts are most advanced and prosperous where some influential landowner, not necessarily connected in any way with school management, has been found to take a personal interest in the matter, a case in point being the mayor of a town in the neighbourhood of Geistingen, who began the work of reformation in fruit growing in his own vicinity by himself planting, as a beginning, some 4,000 fruit trees of good sorts after approved methods.

It is not now for the first time in the pages of THE GARDEN that foreign methods of instruction in fruit growing and general tillage of the land have been put before our readers. The British nation is being aroused to the fact that—from the wealthy owner of vast estates to the poor dweller in the humblest cot—the subject, educationally, is one of utmost urgency, far-reaching as to the limits of the great Empire to which we belong, yet touching closely the well-being of every cottager. May the time soon arrive when we may all be thoroughly wide awake to it and doing, each what in us lies, to help forward both by knowledge and practice the "Art which nourishes all other Arts."

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

BERLANDIERA TOMENTOSA, Crowea saligna, Dianthus arboreus, Lilium nepalense, Passiflora capsularis, and Salvia splendens var. grandiflora.

#### Palm House.

Clerodendron disparifolium, Crinum Kirkii, Hymenocallis eucharidifolia, Medinilla venosa, and Passiflora kewensis.

#### Range.

Æschynanthus lobbiana, Amasonia calycina, Aphelandra chamissoniana, Begonias in variety, Ceropegia Woodii, Hæmanthus Clarkei, H. coccineus, H. tigrinus, Passiflora amabilis, and Pavetta hispidula.

#### Orchid Houses.

Angræcum eichlerianum, Anguloa Ruckeri, Catasetum uncatum, Cynorchis purpurascens, Dendrobium chrysanthum, D. crumenatum,

Epidendrum ciliare, E. inversum, E. prismatocarpum, Lælia elegans, Lycaste xytriphora, Maxillaria nigrescens, Miltonia Clowesii, M. Regnelli, Odontoglossum andersonianum, O. grande, Oncidium varicosum, Stanhopea oculata, and Stenoglottis longifolia.

#### Greenhouse.

Abutilons in variety, Begonias in variety, Campanula isophylla var. Mayi, C. Loreyi, Cannas, Celosia pyramidalis, Hidaigea Wercklei, Lilium speciosum and varieties, Primula obconica, &c.

#### Rock Garden.

Corydalis thalictrifolia, Lobelia syphilitica, Enothera missouriensis, and Polygala chamaebuxus.

#### Herbaceous Plants.

Argemone grandiflora, Asters in variety, Boltonia indica, Chelone Lyoni, Colchicum autumnale, C. byzantinum, C. letum, C. Sibthorpii, C. Szovitsii, C. Tenorei, C. variegatum, Dicentra formosa, Digitalis ambigua, Eupatorium purpureum, E. serotinum, Gerbera Jamesoni (last week this plant inadvertently appeared as G. punicea), Lobelia Erinus, L. Tupa, Mesembryanthemum pyropeum, Scutellaria baicalensis, Silene Fortunei, Stevia Eupatoria, Sunflowers in variety, and Zizania aquatica.

#### Shrubs.

Aralia spinesa, Clematis apiifolia, C. campaniflora, C. cennata, C. grata, C. orientalis, Erica ciliaris, E. multiflora, E. vagans, Hamamelis virginica, Hypericum aureum, H. hircinum, H. prolificum, Kadsura chinensis, Ligustrum lucidum, and L. Quihoui.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

October 7.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster; National Chrysanthemum Society's Show, Royal Aquarium (three days); National Chrysanthemum Society, meeting of Floral Committee; meeting of Scottish Horticultural Association.

October 20.—Meetings of National Chrysanthemum Society's Floral and Executive Committees.

October 21.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster.

October 23.—Croydon Chrysanthemum Show (two days).

October 29.—Kent County Chrysanthemum Show at Lewisham (two days); Highgate Chrysanthemum Show (three days).

October 30.—Penarth Chrysanthemum Show.

October 31.—Finchley and Leyton Chrysanthemum Shows (each two days).

**Roses at North Mymms.**—Several houses at North Mymms Park are devoted to the culture of choice Tea and Hybrid Tea Roses on what is there termed the American system. None are in pots, all are planted out. Most of the plants have been raised from cuttings. Nice firm pieces of wood cut off and inserted in heat in midwinter give a wealth of plants for putting out in the summer, and of course all on their own roots. There is in each house a very large flat or terraced bed on iron stands. The floors are of wood trellis and the sides of inch boards 10 inches deep. On the trellis chopped turf is



placed, the space within the sides being filled with good turfy loam and well-decayed manure, into which the Roses are planted. The side beds are similar, but some 3 feet wide only. Up to the beginning of winter flower-buds are kept pinched out. This induces the formation of secondary shoots in greater number, and these produce the flowers in the winter in great profusion.—A. D.

**Winter Carnation America.**—There is a very large and superbly grown stock of this yet comparatively little known winter Carnation at North Nymms Park, Hatfield. It is a robust grower, yet not of elongated habit, makes a fine pot plant, and flowers freely. The flowers are much larger than are those of Winter Cheer, are of much the same deep scarlet hue, and, not least of its merits, are deliciously perfumed. Mr. Fielder saw it some two or three years since, and realising its great excellence purchased plants, so that now he has hundreds of strong ones. Very likely all being well he will exhibit a group of the Carnation at the Drill Hall in the winter. If so there can be no doubt but that it will be greatly admired. To have a Carnation of such rich perfume and of such deep colour in midwinter is indeed a prize.—A. D.

**Carnation George Maquay.**—Will you kindly let me add to my note about the Carnation George Maquay last week that it should be spelt without the "c." It seems to me an error on the part of raisers of Carnations not to raise hardy, vigorous, continuous bloomers. What does it matter about the shape of the flower if the plant goes out of bloom in ten days, as many varieties do in hot seasons in the south?—W. R.

**Three good new dwarf bedding Lobelias.**—I have this summer grown for trial and comparison in my garden, where I use them as edging to some of my beds, three new varieties of the *Erinus* section of this free blooming and ornamental family, named respectively Mrs. Clibran, sent out last year by the well-known firm at Altrincham, whose name it bears; Newport's Model, sent out this spring, which was well shown and greatly admired at this year's great Temple show; and Chapman's King Edward, raised by Mr. Chapman, of Grangemouth, N.B., first shown and awarded a certificate of merit at the Royal Horticultural Society's great show at Holland House on June 25. Of these varieties I consider the second-named decidedly the best and most beautiful, as it has a fine large white eye, surrounded by a border of the deepest purple, and was greatly admired by all visitors to my garden. The first-named has a smaller white eye, but is very free blooming, and remains perhaps rather longer in flower than Newport's Model. The third variety, King Edward, came too late in the season to enable me to form an adequate or accurate opinion of its relative merits as compared with the other two kinds, as each of my six plants only produced two or three flowers, which have a fine large and pure white eye, surrounded by a rather narrower border of rich deep purple. I hope to see this variety to greater advantage next summer, but from what I have seen of it so far I think it will be entitled to take second place among the three. Its habit of growth leaves nothing to be desired, being most compact and dwarf. I have also grown as a back line in two of my annual borders a much taller-growing variety of *Lobelia*, sent to me under the name of *L. racemosa*, which grows about a foot high and has relatively large flowers, which vary somewhat in shade, some being of the deepest blue, while others are somewhat paler. The flowers of this variety also have the peculiarity of half closing every evening.—W. E. GUMBLETON, *Belgrave, Queenstown, Ireland.*

**Blue Hydrangeas.**—Just what causes *Hydrangea Hortensia* to produce blue flowers when set out as a shrub is still a moot question. There are hundreds of them growing outdoors permanently in Philadelphia and vicinity, and when in sheltered places and in seasons following a mild winter, when the wood is not badly hurt, they flower fairly well, and the blooms are practically always blue. Just why it is that the planting out makes this change seems inexplicable. The plant may be in the same kind of soil, grown in a

tub, and set out on a lawn, but there is no surety of blue flowers. On the contrary, almost always they are of the normal pink colour. Nurserymen are continually being asked for blue *Hydrangeas*, and when the common *H. Hortensia* is offered with proper explanation the surprise is very great. During the summer just closing the display of blue flowers on the planted out *Hydrangeas* has been uncommonly fine. I am told it has been the same at Newport, R.I. Can any of our readers say?—JOSEPH MEENAN, in *The Florist's Exchange*.

**A new Hydrangea.**—The new *Hydrangea* superba was honoured with a silver-gilt medal at the Massachusetts Horticultural Society's exhibition in Boston on July 27 last. It is a seedling raised by M. H. Walsh, of Wood's Holl, who gives the parentage as *H. Otaksa* and *H. cyanoclada hortensis*, the plant illustrated being now four years old. The flowers at the time of exhibition presented a beautiful gradation of pink, violet, and blue, the youngest blooms being white. The flowers are of great substance and borne on slender wiry stems.—*The American Florist*.

**Apple Cornish Aromatic.**—This variety is not so well known as it deserves to be. The fruit develops to a large size under good conditions, and is very handsome and showy, in some instances being mistaken for a Peach when grown on a wall owing to its fine colour. The flesh is firm and juicy, aromatic, and of good flavour. It is best in a sheltered position, and does well in gardens as a bush or horizontally trained or fan-shaped on a wall, the latter method being adopted by Mr. C. Beckett, of Chilton Lodge, who grows this variety on a west aspect to perfection. It is surprising that some of our large fruit nurserymen do not catalogue this fine sort. It must not be confounded with Cornish Gilliflower, a variety with delicious flavour but a bad grower.—J. G., *Cam.*

**Notes from the Royal Horticultural Society's Fruit Show.**—Mr. Berwick, Sidmouth Nurseries, Devon, is to be congratulated upon his success in obtaining the highest award (a gold medal) for a display of fruit grown entirely out of doors, arranged upon a table 48 feet by 6 feet. Mr. Berwick has competed for the gold medal for many years, but has never until this year been able to gain more than second prize. His exhibit, although not up to the standard attained by other first prize winners in more favourable years, was, considering the extremely trying season, one of great merit. Mr. George Woodward's exhibit from Barham Court Gardens, Maidstone, was of a very different nature to that usually sent by him to the Crystal Palace Fruit Show. Mr. Woodward is invariably one of the most successful exhibitors of hardy fruit at this show, but owing to the hailstorm of unprecedented severity which visited Barham Court Gardens a fortnight or so ago the fruit crop was practically wrecked. Samples of the damaged fruits were sent last week to the fruit show, and they were terribly disfigured and mutilated by the hail. Shoots of Apple trees and *Chrysanthemums*, completely stripped of their leaves by the storm, were also shown. Mr. Woodward gave the following information concerning the damage done:—"By the hailstorm on the 10th inst., 6,000 Peaches, several hundred bushels of Apples, Pears, Plums, and Damsons were totally destroyed; the trees were very much damaged, and some irretrievably ruined. Vegetables, too, were in shreds and useless. On the 17th inst., solid blocks of hail 4 feet thick and 50 yards long could be seen."—A. P. H.

**Early-flowering Chrysanthemum Horace Martin.**—This latest addition to what is generally known as the Mme. Marie Masse family of early-flowering *Chrysanthemums* is undoubtedly the best of the several sports. A high opinion was formed of its merits last season when it was submitted to the respective floral committees of the National *Chrysanthemum* Society and the Royal Horticultural Society. The first-mentioned society awarded this variety a first-class certificate, and the latter society placed their award of merit to its credit. The form of the flowers is dainty and pleasing; they are

developed in wondrous profusion, and the capital length of footstalk, which is an excellent trait in the character of all flowers of this family of *Chrysanthemums*, gives them a value, when grown without disbudding, which very few of the early sorts possess. The colour at this season may be described as a rich canary yellow, deepening in the centre of the bloom. Most of the plants are 3 feet through and are literally covered with blossom. Contrasted with a group of *Crimson Marie Masse*, from which it is a sport, the effect is very striking and handsome. The robust character of the plant's constitution, together with its vigorous growth, go to prove that another season will see this beautiful variety distributed freely throughout the country. Plants of this description when judiciously grouped in the hardy border do much to brighten and enrich their surroundings in the autumn months.

**Chrysanthemum Norbert Puvrez.**—This is an early-flowering *Chrysanthemum*, introduced some ten or twelve years ago, and of which little has been heard since. Recently at a lecture on early-flowering *Chrysanthemums* at Kidderminster, Mr. William Sydenham sent with others, for the purpose of illustration, a charming bunch of this variety. The bunch was very much admired by all who saw it, and the variety may be included in the list of really good things for outdoor displays. The bunch of blossoms had been cut from the open ground, and appeared to be little the worse for the unpleasant weather of late. The colour is a deep rich golden-salmon, and the flowers are of good size, height about 18 inches to 2 feet, the period of blossoming is September and later as weather permits.—D. B. C.

**Gardenia Thunbergia.**—A specimen of this old but rarely seen shrub has for several weeks past been flowering well in the Mexican house at Kew. It has been cultivated off and on at Kew for more than a century, and was introduced to Kew by Sir James Cockburn, Bart., about 1773. In 1807 it was figured in the *Botanical Magazine*, t. 1004, the specimen being obtained from Mr. Greville's garden at Paddington. It is said to be widely distributed through Central and Southern Africa, large specimens also being found on the Gold Coast. The largest specimen at Kew is about 7 feet high, and is of dense habit. The leaves are evergreen, more or less oval and acute, and are often arranged in whorls. The largest are from 5 inches to 6 inches long and 2 inches to 2½ inches wide. The white flowers are borne singly from the ends of the growths. As in the case of the well-known double *Gardenia*, the flowers are extremely fragrant, but differ considerably in shape. In the case under notice the flowers have slender tubes 4 inches to 6 inches long, the limbs of the corolla having a diameter of 3 inches or so. It appears to be a difficult plant to flower when young, though it is by no means so to grow. At Kew it is planted out in a border of loam in an intermediate temperature.—W. DALLIMORE.

**Eustoma russellianum.**—Owing to the difficulty experienced in growing this plant it is rarely seen in gardens, though when it does happen to flower it is highly ornamental. In the Mexican house at Kew a few plants are now in flower, where their distinct appearance makes them conspicuous among surrounding plants. It is a native of Mexico and Texas, and was introduced nearly a century ago. It is really a biennial, though it has sometimes been grown as an annual. It grows about 1 foot or 1½ feet high, and produces ovate leaves and terminal corymbs of light purple flowers, each flower being 3 inches across. Some years ago it was grown well in the nurseries of Messrs. Dicksons of Chester. The seeds in that case were sown in a pan of finely-sifted soil, which was placed in a tropical propagating house. The young plants were grown on a shelf near the glass in the same temperature until they were several months old, when they were placed in a warm but airy greenhouse, where they flowered. The plants at present flowering at Kew were grown in an intermediate temperature throughout. In some places this plant is much better known under the name of *Lisianthus russellianus*, which is a synonym of *Eustoma russellianum*.—D.



**Cuphea platycentra.**—This is one of the old-fashioned plants that might with advantage find a place more often than it does in summer bedding, for, although by no means so brilliant in its colouring as many things, it is sufficiently so to make a very attractive bed. It is seen to advantage as a carpet plant among a few pyramidal or standard Heliotropes. Introduced from Mexico in the forties, it was probably first grown in the ordinary greenhouse or conservatory, but its adaptability for outdoors during the summer months must have been quickly recognised, for I remember it as a flower garden plant more than forty years ago. Another old plant that may be occasionally used in a similar way to the *Cuphea* is *Diplacus glutinosus*; it makes a charming bed when associated (slightly pegged) with clumps of the scarlet-flowered perennial *Lebelias*.—E. BURRELL.

**Some accommodating plants.**—In the Orchid houses at the Dell, Englefield Green, Surrey, the residence of Baron Schröder, there are several most interesting examples of plant culture, quite apart from those presented by the many unique and beautiful Orchids. It is not that the plants themselves are of any special merit, but from the positions in which they are growing they deserve notice. One would never think of looking for healthy luxuriant plants beneath the grating of a pathway in a hothouse, yet in some of the Orchid and plant houses here there is quite a beautiful green carpet exposed to view when the grating is lifted, and the plant that forms it is the well known *Selaginella denticulata*. One often sees this used in a winter garden or conservatory as a covering for the bare soil between various plants, but even in such positions it is not always a success. To see the luxuriance with which it is growing in the above-mentioned curious and, one would think, anything but suitable place, it would appear that the deepest shade and any amount of moisture were the only requisites for its unqualified success. Many ornamental-leaved Begonias, in numerous beautiful varieties, were also thriving along with the *Selaginella*. That it is dark beneath these pathway gratings goes without saying, and a tremendous quantity of water must fall there throughout the day from the continued damping of the walls, floors, &c., but it evidently snits the Begonias and *Selaginella* perfectly. Rarely if ever have I seen the varieties of Begonia Rex (and they are now many and beautiful) grown so well and made such excellent use of as by Mr. Ballantine in the numerous plant and Orchid houses at the Dell. In the rocky under glass they are splendid, their leaves are giant ones and charmingly marked and coloured. Some of the best varieties were, I believe, obtained from Messrs. Sander and Sons, St. Albans, in the first place; when established they may easily be propagated. Under the stages also these Begonias are quite at home, forming a delightful ground covering and a pleasant change from the usually bare and ugly appearance of this portion of the house. Other beautiful little plants thriving most luxuriantly beneath some of the stages in the *Odontoglossum* and other houses are the *Fittonias*—*F. argyoneura*, with silvery veined leaves, being especially good. It quickly spreads and completely hides the ground from view. Were Mr. Ballantine's methods more generally adopted Orchid houses would more often be things of beauty when the Orchids are out of flower than is the case, at least they would be less commonplace.—A. P. H.

**Proposed vegetable exhibition at the Westminster Drill Hall, 1903.**—The following circular has been sent to the trade:—"The council of the Royal Horticultural Society having consented to set apart one of their fortnightly meetings at the James Street Drill Hall, Westminster, next autumn for an exhibition of high-class vegetables, we beg respectfully, as the promoters of the same, to ask you whether, subject to acceptable conditions, your esteemed firm would kindly consent to offer prizes for a class of vegetables at the said show. Our sole object is to secure for vegetables (most important of garden products) far higher recognition than they have hitherto received in London, and to that end we

wish to see at least one such exhibition held under the auspices of the Royal Horticultural Society annually, and alternately for late vegetables in September and for early ones in July. The council will not offer prizes; hence we are compelled to invite the kind co-operation of the seed trade. We do not wish for high prizes or large classes, but one at least to be fully comprehensive should include eighteen kinds, others being for twelve, nine, and six; also several classes for single dishes, and especially a class for salads. We would also desire to see one or two open classes for cottagers' vegetables. We think that there will be ample space in the present Drill Hall, not only for such classes as are named, but also round the sides for collections of choice vegetables, within rigidly prescribed limits, exhibited by firms contributing prizes. Such collections should greatly help to create a remarkably representative display of vegetables. It is needful, however, clearly to intimate that the council of the Royal Horticultural Society offer strong objections to some of the conditions usually imposed in schedules in connection with trade prizes, and to overcome these objections and thus enable what should be an unique display of vegetables to be held in London annually, we respectfully submit that each firm or seedsman offering any prizes be content to require that competitors for the same 'must be their customers.' Such condition we think should be regarded as sufficient and quite unobjectionable. As the council's arrangements for the ensuing year are now in course of preparation, and in which publication all vegetable prizes and classes will be inserted, we ask you kindly to favour us with an early reply.—EDWIN BECKETT, *Aldenham House Gardens, Elstree*; ALEXANDER DEAN, *Hon. Secretary, 62, Richmond Road, Kingston-on-Thames.*"

**Kitaibelia Lindemuthii.**—This has done very well, having stood the winter perfectly. Its weak point is that those parts of the foliage from which the chlorophyll is absent, or where it is more or less deficient, are liable to burn, but it is chiefly the oldest leaves that show this tendency. Having saved a score of seeds last year they were sown this spring, the result being a dozen plain green-leaved plants, without a trace of variegation. As the graft is so thoroughly permeated by the sap of the stock, I thought there were fair reasons for hoping the seedlings might share the variegation, but facts do not so far confirm the theory.—W. THOMPSON, *Ipswich.*

**Notes from Bournemouth.**—The Public Gardens are now looking their best. Starting through the first, one is struck by the large round beds on each side of the path, each bed matching the opposite one. The beds of *Canas*—two of red and two of yellow—are perhaps the handsomest in the gardens. Then there are beds of *Fuchsias*, tall and graceful, and *Zinnias* of all colours, edged with French Marigolds and Begonias so full of bloom that there is scarcely a leaf to be seen. Then one comes to the two end beds of large, many-coloured double Scabious. Further on, in the next garden, the stream which flows through all widens out into several pools to form a rock garden. This part of the garden is fenced off and the gates padlocked, so that the soft green turf is not worn, and the brown ducks swim in the pools undisturbed. Higher up this garden is a bed of *Aloes* in flower. In all of the gardens there are clumps of *Tritoma*, some fully out, but most of them coming, and clumps of *Montbretia*, which thrive in the mild climate. Here and there to lighten the dark green of shrubberies are tall *Gladioli* sending up their bright spikes of flower. Most of the private gardens are bright with flowers of all kinds, large African Marigolds, *Fuchsias*, and *Hydrangeas*. Of the two last, I saw some splendid *Fuchsias* grown into trees almost, quite 4 feet high, and the flowers drooping in a shower from what one might almost call the trunk. The *Hydrangeas*, one particularly, were nearly sky blue. In the reservoir are some pretty white *Nymphaeas* just now in full bloom. Going on to the wild flowers, the cliffs are covered with Heather (just beginning to fade), Bracken, Gorse, Blackberry bushes (the fruit just ripening), and always a background of Pine trees.—A. SMALLPEICE.

**Pear Triomphe de Vienne.**—A Pear that is a constant bearer under any mode of training and produces large fruit of excellent flavour is the one named above. It is likewise a free and vigorous grower, making excellent specimens in a comparatively short time. The fruits come into use in September, after Williams' Bon Chrétien. It succeeds well here as a single cordon on an east wall, the fruits being large and of good flavour. I well remember what splendid crops of fruit on pyramid-trained trees Mr. H. Markham used to get of this variety when he was at Mereworth a few years ago. It is a variety that can be recommended to amateurs and gardeners alike when about to do some planting.—J. G., *The Retreat, Cam.*

## THE FLOWER GARDEN.

### CARNATIONS FROM SEED.

FEW things in a flower garden are more interesting than a bed of seedling Carnations; they are a source of the greatest pleasure both to the grower and his friends; they provide an abundance of blooms for cutting, and besides this there is always the chance of raising some new variety which will be even more beautiful than those already in existence. The first and most important thing is to procure good seed from some well known grower who saves it only from carefully fertilised flowers of the best varieties. Sow it in a box of fine prepared soil in March, and place the box in a hot house or garden frame with some bottom heat where it will soon germinate, and when the little seedlings get their second pair of leaves, and are large enough to handle, prick them out into boxes of good prepared soil and place them in a frame until they show that they have got hold of the new soil, then gradually harden them off, and eventually, about the end of June or early in July, plant them out in beds of deeply-dug rich soil about 18 inches apart where they are to flower the following season. During the winter they will want little or no attention. In the spring the soil should be occasionally stirred to keep down weeds, and the plants should be given a good dusting over once or twice after rain with soot mixed with wood ashes. This helps to keep off wireworms, slugs, and other pests, and acts as a good manure also. Beyond this there is only the staking of the flower-stems, and, of course, the necessary watering in dry weather, and it is most important not to let the roots get too dry.

This raising of plants from seed may seem a long process, but patience is everything in gardening, and the reward will come when you see your plants showing a mass of buds, and you eagerly scan them every morning and criticise the flowers as they open. Now, one word of warning—you must not expect too much; there will be many that are not worth keeping, owing to the flowers being badly formed, and there will be a certain percentage of singles; but amongst the rest there should be, if the seed has been good, a nice lot of plants that you can layer for producing plants to bloom the next season, and these layers you will find are mostly stronger and naturally more likely to suit your climate and soil than plants you can procure elsewhere.

When you have determined which of the seedlings come up to your idea of what a Carnation should be, you should mark them and make a note of their colour and habit of growth. Next comes the layering, which is generally done about the end of July or the beginning of August, and which process I will



shortly describe. You will require a sharp knife, some layering pins or pegs, and some fine prepared soil mixed with road scrapings or leaf-mould and sand. You will then carefully select the best shoots round the collar of the plant and nearest the ground, and cut away the rest (these, if thought advisable, may be struck as cuttings), thus freeing the plant as much as possible of all growth except the shoots you intend to layer and the flower-stems. Do not attempt to layer too many shoots, since if you do they will be apt to get too crowded when they begin to grow and so become a prey to disease. Next strip off the leaves from the shoots you intend to layer up to the third or fourth joint from the top, take your knife and make a clean cut halfway through the joint next below the one to which you have stripped off the leaves, and with a turn of the knife continue it in an upward direction as far as the next joint, thus forming a tongue, then bend the shoot carefully down and peg it firmly about an inch deep into the soil, which should have been previously loosened to a depth of 2 inches or 3 inches and have had a little of the prepared soil added to it. Repeat this process until you have a circle of layers all round the plant, then water them well with a fine rose, and keep them watered until they are well rooted and ready to plant out in their flowering beds, which will probably be about the end of September or beginning of October.

These layers will, the succeeding season, make strong plants, and, although they will not give the same profusion of bloom as their seedling parents, my experience is that they do better than plants which come from a strain that has been propagated from layers for a greater number of years. Now, I do not for one moment mean to say that I would advise you to neglect the many excellent old border varieties, but I would have you supplement your collection with a few seedlings, and I feel sure that you will never regret the little care and attention you bestow upon them.

*St. Asaph.*

W. A. WATTS.

[Mr. Watts kindly sent the beautiful seedling Carnations noticed in *THE GARDEN* on September 13, and the photograph of that fine white George Maquay.—ED.]

### BORDER CARNATIONS.

Now the Carnation season for 1902 is over, one can profitably perhaps jot down a few notes, more particularly with reference to the newer kinds grown last season for the first time, not forgetting those whose acquaintance we have not yet made in the garden, but which will be sent out this autumn. I cannot help wondering sometimes whether all the new flowers that one sees are really improvements; but if care is taken to see them—as they must be seen—growing, then comparisons can be fairly made. It is a mistake to take an individual bloom (such as one sees at the shows) and order that variety unless it is grown for exhibition only. I am not professing to write from that point of view. This article, then, only considers the Carnation as a garden flower and not as a show bloom. What I want to point out is, that in Carnations as in Roses, we are getting from the raisers and distributors of the new varieties many flowers that, while indispensable for show, are really equally indispensable for the garden. No one who has tried the new Carnations, such as Trojan, Miss Audrey Campbell, Agnes Sorrel, Lady Hindlip, &c., is likely to be content with the old varieties, such as Raby Castle, Gloire de

Nancy, Alice Ayres, &c., and yet I am bound to admit that in six gardens out of seven it is the old Carnations that are grown, presumably from lack of knowledge. True, the initial cost is slightly more, but taking into consideration the increased number of layers one can get from the newer varieties, to say nothing of the finer quality and greater quantity of the flowers, the best are much the cheapest in the end.

All the varieties named have been grown by me out of doors, and were all planted last autumn (some from my own layers), and received no protection from the weather, but were grown naturally in a good light loam. Town growers will find that the sparrow does much mischief unless a plentiful lot of black cotton is used.

With one or two exceptions the whole of the Carnations mentioned below were raised by Mr. Martin Smith, and sent out by Mr. Douglas; they are all robust growers, with calyces that do not burst. I propose dividing them into their natural classes, and will commence with the

#### SELF CARNATIONS.

*Whites.*—I saw a note in *THE GARDEN* on September 13 with reference to a white Carnation called George Maquay. The writer put it *facile princeps*. I am sorry I have not come across it, because I have always wanted a good white, and was never content until I met with Trojan; this variety is really first-class. The photograph accompanying these notes was taken in August after the plants had been in flower about three weeks. A careful inspection will show that all the best flowers and crown buds have been picked; the grass is very strong and of beautiful colour. Other good whites are Hildegard, The Briton, Much the Miller, and Ensign (the last two best for exhibition).

*Red and Scarlet.*—Lady Hindlip is a brilliant crimson-scarlet, with fine form and petals. One of the best of this colour, another excellent flower, is the Cadi, rich scarlet with well formed petals and fine outline. Tabley is a good flower of large size. Quentin Durward is very vivid but not quite so robust a grower. Mrs. Macrae is darker, and then we come to Agnes Sorrel, Gil Polo, and Nox, the darkest of all. Agnes Sorrel is the best grower of the three, Gil Polo having perhaps the better flower for exhibition. Nox requires shading, otherwise it quickly burns like the dark red Roses.

*Pinks.*—The shades of pink are innumerable, and it seems to be the favourite colour. Most people seem to prefer a pink Carnation to that of any other shade. Blushing Bride is one of the pale ones; Lady Nina Balfour is blush pink, not such a good grower; Miss Schiffner is one of the best flowers, large and scented; Mrs. James Douglas is quite the best of its shade, a deep salmon-pink; Rose Celestial and Asphodel are both good; Bomba and Sapho are much alike, with a preference for the latter.

*Yellows.*—Miss Audrey Campbell does as well with me as any of the yellows. Cecilia is finer, but not so strong or as free blooming. Almoner is excellent in the petal and a large flower, sometimes coming deeper in the centre. Of other selfs Midas is the best orange-coloured flower, that sometimes comes nearly scarlet.

*Lavender and heliotrope.*—I think Lady Jane Grey has proved the best of these curious coloured flowers, that are quaint rather than beautiful, Garville Gem being not quite so satisfactory.

#### THE PICOTEEES.

These, especially the yellow grounds, I am very fond of. It is not so long ago that I gave

up as a hopeless task trying to grow yellow ground Picotees out of doors; but the following all wintered well with me this year, showing the great improvement in the constitution of these flowers that has taken place since Mr. Martin Smith took them in hand.

Childe Harold is one of the new flowers that has been exhibited a great deal this season; its margin is very good, a deep rose in colour; The plant is vigorous. Argosy is another fine flower, but I found that most of my flowers came with a splash or two on the petals that makes it more of a fancy than a Picotee, under which latter title I believe it was sent out. Effie Deans is a very fine grower, but this too has the same fault of slight splashes. Empress Eugenie, although not of very recent introduction, is still one of the best. Glee Maiden and Gertrude are excellent. Lanzas is also hard to beat, and very useful, fine form, of good colour, with an edge of purple. Mrs. Tremayne is an excellent heavy edge, with a ground of deep yellow. Lady St. Oswald, bright red margin on rich yellow; distinct, good. Huella, a new and very pretty flower, not a fine Picotee, but too pretty to be discarded altogether.

Of the fancies there are many flowers very beautiful individually, but they are not so good in the garden as the self. Still, I would not be without those named. Charles Martel is good, having a white ground instead of the more common yellow. Hidalgo is very fine and a great favourite for exhibition; a great number consider it the finest fancy ever raised; it sports a great deal. Czarina, a distinct, well marked flower, yellow ground and bright scarlet. Mrs. Charles Baring is another heavily marked flower. Queen Bess has been on many winning stands, and is excellent with me. Sweet Lavender is another good grower. Miss Mackenzie is very difficult to beat for prettiness; it is not so large or correctly formed as some, but its delightful colouring makes it a great favourite.

I cannot conclude these notes on border Carnations without a word as to growing them from seed. I planted out about 100 strong plants last autumn in October, and there is something very fascinating in this method of growing the Carnation—one never knows what may turn up. One certainly gets a proportion of singles, I should say possibly 30 per cent.; but they are very beautiful—I had a single yellow this year that was very lovely—and they are really as decorative as the doubles. Of these I had three plants that I am propagating from. They are, I think, distinct, but not good enough for show. If one has not sown the seed, any of the Carnation growers will supply seedlings at about 3s. 6d. per dozen, but it is as well to go to a specialist; one gets much finer flowers, not to mention plants.

HERBERT E. MOLYNEUX.

*Brantwood, Balham, S.W.*

[George Maquay is a beautiful white. It was figured in *THE GARDEN*, September 13, page 177.]

### SWEET VIOLETS—OLD AND NEW.

(Continued from page 176.)

#### WINTER TREATMENT.

In the southern counties the double Violet will survive our winters, but the plants are so crippled by severe frost that few, if any, flowers can be expected, therefore cold frames or pits must be provided. Those in which Melons or Cucumbers have been grown during the summer will answer the purpose admirably, as the exhausted Melon soil will serve as an excellent medium for planting the Violets in. The Violet plants when planted should be within 6 inches of the glass, so that more soil will have to be added if necessary to



bring the plants to this height. Before the plants are taken up from the border they should receive a good soaking of water the day before, and they must be taken up with a ball of soil as big as the plant itself. In planting pack them close together, in order to get as many plants in the frame as possible, so that when they are in bloom the surface of the frame or pit will be wholly covered with flowers. Immediately after planting the plants should receive a good soaking of water, the lights placed on, admitting plenty of air, and the pits shaded for a few days to prevent flagging. In a week or ten days they will have recovered from the effects of the moving, and the shade must be discontinued, and as long as the weather continues mild and warm the lights should be left off the frames and the plants exposed to the weather day and night. Early in October frost may be expected, when the lights must be placed over the Violets at night, leaving plenty of air on, unless danger of frost is apprehended, when they should be closed the last thing at night. During severe weather in winter the frames must be covered with mats or some

double will answer equally as well in the case of the single varieties. It should be propagated at the same time and in the same way, except that it is not necessary to pot the young plants after they have been divided and taken from the parent plant. The stronger the small divisions are and the more roots they possess the better plants will they make in summer. They succeed best in the same aspect as recommended for the doubles (north-east, with partial shade), and the border for these should be enriched with a liberal dressing of rich, short manure, as well as an addition of leaf-soil, lime, and road scrapings. Instead of digging the land in the ordinary way it should be bastard trenched, that is, the top spit turned over, and the bottom spit also turned over and left at the bottom.

The single varieties grow much stronger than the double ones, and therefore they must be planted further apart, 3 feet each way being none too much for such varieties as Princess of Wales, California, La France, and others of this class. They attain such a size by the autumn that they more than meet even at this distance, and

foliage, and above all to have a good ball of earth to the plant at the time of replanting into pits in the autumn.

*Princess of Wales.*—This variety was introduced into English gardens a few years ago from Hyères. The flower is of large size, and carried on a foot-stalk often from 9 inches to 1 foot in length. A robust grower, quite hardy, a lovely blue, and deliciously scented.

*La France.*—As large as Princess of Wales, of a darker shade of blue. In many respects this is undoubtedly the best single blue yet introduced, and should be grown in every garden.

*California.*—Introduced from America a few years ago. It is a handsome variety; in growth and habit much like the two above mentioned, but inferior to both in every respect.

*Princess Beatrice.*—Like the above, only of dwarfer habit and later in blooming.

*Admiral Avellan.*—One of the most distinct and valuable single Violets we possess. It is of purple colour, with a distinctly red shade, well deserving of a frame in winter, when abundance of flowers in their distinct shades of purple will be available.

*Princess de Sumonte.*—An Italian variety, sweetly fragrant and beautiful. The flowers are white, flaked with blue.

*Sulphurea.*—Sulphur-coloured novelty.

*White Czar.*—The only single white worth growing.

OWEN THOMAS.



SELF CARNATION TROJAN (WHITE) IN A SUBURBAN GARDEN.

(From a photograph kindly sent by Mr. H. E. Molyneux. Many flowers had been gathered before the photograph was taken.)

other covering to a sufficient depth to keep out frost. It is fatal to use fire-heat at any time in the growth of the Violet. The first flowers will appear towards the end of September, and in increased numbers through October and November, but not so many usually during December and January, as the plants are then in a more or less dormant state; but as soon as February comes (if they have wintered all right) flowers appear more abundantly until well into April, when the season is over and the plants are ready to be again propagated. Thus comes to an end the detail of the cultivation of the double Violet for one whole year.

#### THE SINGLE VIOLET.

This is hardier, and may be profitably grown in the open air as a market crop, but the quality and quantity of flowers are better when under glass and treated in the same way during winter as for the double Violet. In treating of the cultivation of the single Violet, I will only touch on those points where the conditions and culture have to be varied slightly to meet special requirements. Beyond this, the details given in the culture of the

when lifted in the autumn for planting in pits they have a ball of earth attached as large and heavy as a man can carry. I said before that there is no advantage in potting up the young divisions of the single varieties at propagating time. Instead, they may be at once dibbled into the prepared border in the same way that Cabbages are planted. Once planted in their summer quarters the same routine of culture should be followed as recommended for the double variety, and if the best is to be made of them they should be replanted into cold pits in the early autumn the same as advised in the case of the others. Should this not be possible, these sorts will give a good return out of doors during the autumn and winter and in spring, towards the end of March and through April, they will furnish abundance of bloom; they are perfectly hardy.

The following conditions should be observed in the cultivation of the Violet if the best results are desired: Pure air, partial shade, well drained and well cultivated soil of not too heavy texture, immunity from red spider, the provision of divisions in spring, with a good supply of roots and healthy

## THE ROCK GARDEN.

### ROCK GARDEN MAKING.\*

#### I.—INTRODUCTION.

OF all the numerous branches of horticulture there is, perhaps, none more abused than the making of rock gardens. Many are the instances in which an otherwise pretty garden has been spoiled by so-called rockwork badly constructed and utterly out of character with its surroundings. It must be borne in mind that no rocks of any kind can possibly be an ornament to a garden unless they are either natural or appear to be so, and are associated with suitable plants.

Can anything be more hideous than the average villa garden on sloping ground, where, in spite of regular outlines generally, rockwork is introduced in the shape of actual rows of stones almost uniform in size, and placed mostly upright on their ends? But builders and "jobbing gardeners" still vie with each other in putting up these monstrosities. Nor are they the only sinners. In plenty of larger gardens the same plan unfortunately is followed. A heap of soil or rubbish is thrown up; it is studded with stones and a few plants, and the rock garden is finished. I know hundreds of instances in which the work was carried out precisely on these lines, and it is no wonder that—with such examples of bad taste before them—the owners of many estates are altogether prejudiced against rock gardens of any kind, even when the site and its surroundings are suitable for the purpose.

It may be argued that gardens on sloping ground would often make stonework necessary in order to keep up the soil, &c. This I willingly admit, but in most cases simply a plain wall would have been more suitable. In the case of a terrace wall, the latter can be adorned with all kinds of choice flowering creepers. If

[\* With this article we open a series of practical essays on the construction of rock gardens, illustrated by numerous drawings and photographs, by Mr. F. W. Meyer.—Ed.]



stonework is absolutely necessary to keep up the sides of paths or drives, it would be better to erect a plain "dry" retaining wall, in which the joints would be filled with good soil instead of cement or mortar—this would be admirably adapted for "wall gardening"—than construct a long and narrow line of rockwork which could never look natural in such a position.

A wall garden may be made very beautiful and interesting, and a rock garden which has an absolutely natural appearance may be made more beautiful and more interesting still. But the fact cannot be too strongly emphasised that the horrid structures referred to above, which are neither one thing nor the other, *i.e.*, which resemble neither wall nor rock, are absolutely out of place, and without being entirely reconstructed they can never be transformed into a thing of beauty. The subject of wall gardening will be dealt with separately under the heading of "Wall Garden Making." I propose under the heading of "Rock Garden Making" to give a series of essays dealing systematically with this interesting subject, giving practical hints based on actual experience. This, I hope, may be useful to others, and assist them in deciding what to do and what to avoid. I do not for one moment wish to recommend my method of construct-

is furnished with plants from the Himalayas or Norway, Switzerland or Colorado. The all-important point is that it must be absolutely natural in appearance, and therefore in harmony with its surroundings.

Without this last-named condition the ground can never be a proper rock garden in the true sense of the word. It may have stonework covered by plants of the coarser kinds; we may have elaborate cement or plaster works somewhat resembling rocks, on which, however, no plants can grow. But in all such work the greatest charm of a rock garden—*viz.*, natural simplicity—will be absent, and for this reason, a really natural-looking rock garden of only a few yards in extent will be infinitely more pleasing to the eye than the most extensive or the most elaborate structure which does not comply with these conditions, but betrays its artificial origin at a glance.

A rock garden enables us to cultivate a very much larger variety of plants than it would be possible to obtain from ordinary beds or borders. It can be so arranged as to be a source of delight practically all the year round. It will enable us to grow even the minutest gems of the alpine flora, more especially as the moist climate of these islands is such that in some instances alpine plants, if properly planted, will grow even better than in their native home. A rock garden, properly constructed, should be of that wild and rugged character which is so fascinating in the works of Nature, and though we can never introduce into our gardens the majestic grandeur of the Alps, we can at least have ground which is picturesquely treated and broken up so as to represent mountain scenery *in miniature*. Since we have mountain plants from all quarters of the globe at our command, our picture can make up in variety what it may lack in grandeur.

It must not be supposed that in planting a rock garden we must restrict our choice of plants to those

from certain districts only, just because we find them so associated and distributed in Nature. This would be going decidedly too far. There is no reason why we should not improve upon Nature, and, if we have embraced a chance of embellishing our rock gardens with plants from various zones, we have taken a forward step in that direction, for we can by that means prolong the flowering season and make our rocks practically an attractive feature in the garden, even at a season when the rest of the garden is dull and uninteresting.

Many people are of opinion that rocks to be picturesque must invariably be associated with water. Water in almost any form imparts life and light into the landscape, and into the rock garden in particular. But visible water is not indispensable, and in the following essays on "Rock Garden Making" I hope to show that very pretty rock gardens on a large

or small scale can be made without having the additional advantage of running water.

From the foregoing it must not for one moment be inferred that a rock garden is essential in every garden, large or small. On the contrary, the introduction of rockwork into some gardens would be absurd, if the surroundings are not such as would be suitable to a more or less rugged treatment. My argument is that nothing can be prettier or more desirable than a well made rock garden in the right place, but also that nothing could possibly be worse than rockwork out of place.

It is with a view of arriving at some satisfactory solution of the problem as to how to deal with various grounds and under varying conditions, that I propose to go fully into this matter in the following chapters on "Rock Garden Making."

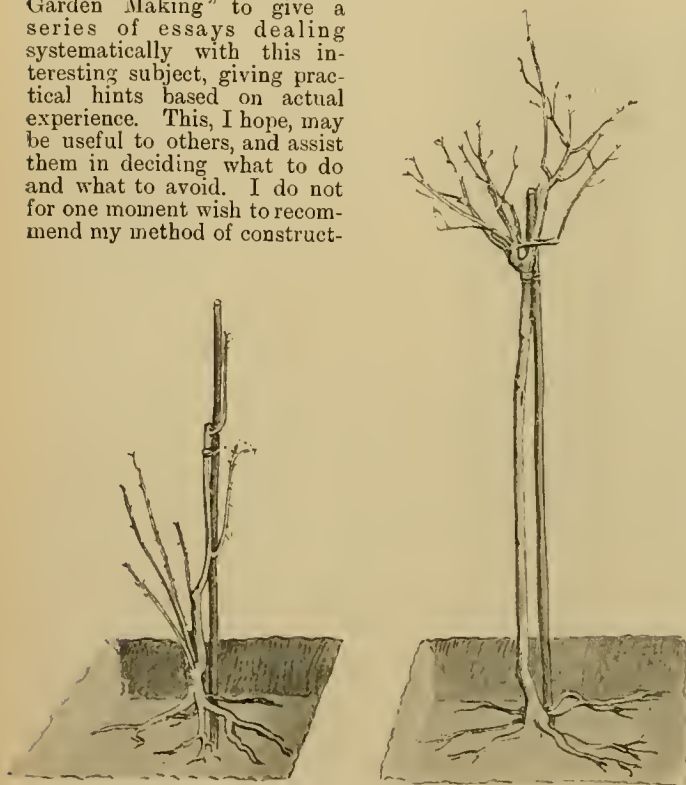
*Elmside, Ereter.*

F. W. MEYER.

## THE ROSE GARDEN.

### PLANTING ROSES.

AS the time is approaching for Rose planting, we cannot do better than quote the excellent remarks of Mr. Mawley in "Roses for English Gardens," and reproduce two illustrations. The beds must be prepared as recently advised in *THE GARDEN*. Actual planting "can be undertaken at any time between the beginning of November and the end of March, but the best time of all is early in November. Should the ground be sodden or frozen when the Roses arrive, the planting must be deferred until in the one case the superfluous moisture has passed into the subsoil, and in the other until the frost is quite out of the ground. In order to prevent the exposure of the roots to sunshine or drying winds, it will be a good plan to take only a few plants at a time from the place where they have been heeled in, and to place a mat over them when brought to the side of the bed. A square hole for each plant should be made, not more than 6 inches deep and sufficiently large to hold the roots when spread out horizontally. A plant should then be taken from beneath the matting and placed in the hole, taking care to spread out the roots evenly all round. Some fine soil, free from manure, should next be worked with the hand between the roots and above them to the depth of 3 inches, and afterwards trodden down with moderate firmness so as not to bruise the roots. After adding more soil, that in the hole should again be pressed down, more firmly this time, and a final treading given when the hole is filled up. Firm planting is of the greatest importance to the after welfare of the plants. In planting Roses intended for exhibition, or where extra attention can be given them, it will be well to place a little leaf-mould at the bottom of each hole, and to work in among and above the roots a few inches of the same material instead of the fine soil. Failing leaf-mould, some finely-chopped fibrous loam may be used; if of a somewhat gritty nature so much the better. In each case a small handful of bone-dust should be sprinkled over the layer of leaf-mould or fibrous loam. The principal advantage of these additions is that they enable the plants to become more quickly established. It also allows of the planting being proceeded with, when, owing to the wet nature of the soil in the beds, it would not be otherwise practicable. No manure should be



METHOD OF PLANTING BUSH AND STANDARD ROSES.

ing rock gardens as right and condemn all other methods as wrong, but I will merely give the result of my own experience, and will enquire into the principle of the theory and practice of rock garden making according to the lessons taught by Nature, and I will leave others to draw their own conclusions.

### WHAT IS A ROCK GARDEN?

A rock garden is that portion of a garden which contains either natural rocks or rocks artificially arranged in such a way as to appear natural, and on which mountain plants of all kinds can thrive. It is not a question of size, or of the kind of rock, or of the kind of plants to be used. These are mere details, depending on circumstances. It matters not, therefore, whether the rock garden is many acres in extent or only a few yards. Neither does it matter whether it is composed of granite, limestone, or any other rock, or whether it





WILLOWS BY WATERSIDE.

Mme. Pierre Cochet, deep orange-yellow.  
 Mme. Hoste, bright clear yellow.  
 Niphotos, snow white.  
 Papa Gontier, rosy crimson.  
 Souvenir du President Carnot, rosy flesh, shaded white.  
 Victor Hugo, glowing scarlet-crimson.  
 White Maman Cochet, pure white, tinged with blush.

### WILLOWS.

AMONG the many things which attract the attention of garden-loving people none are so easy to get and grow as the Willows, which, however, we so often see neglected. Some of the garden forms are grown, but frequently the finest native tree Willows do not take the place in garden pictures they deserve, such as the yellow-barked Willow and its red form. The Weeping Willow, which is a characteristic tree in certain parts of England and Ireland, is much less seen about London, owing probably to its being somewhat tender, otherwise why is it not grown? People who have the opportunity of planting these things along rivers and streams and in marshy ground have some of the most charming foliage to wander amongst at this time of the year that any trees produce.

A very interesting Willow is *Salix blanda*, which Baron Von St. Paul tells us is harder than the Weeping Willow and a noble tree. Amongst the other Willows lately planted by us in groups by water we may mention *daphnoides* with purple shoots; *Sieboldi*, which is a very free and promising Willow; *Salmoni*, *lucida*, *cæsia pendula*, and the various forms of the White Willow, such as the Huntingdon and Bedford Willows. The American Willow is a charming little tree, but owing to its being grafted on the common Sallow it takes a great deal of trouble to keep the suckers from killing it.

Now that trees and shrubs are being more planted in gardens we hope the many beautiful Willows will not be forgotten. The golden and red-barked varieties of *S. vitellina* are charming for their winter colouring. These, though scarcely ever seen, are capable, when properly treated, of producing bright warm effects that are especially charming from November to February. When allowed to grow naturally this Willow—known popularly as the Golden Osier—forms a graceful tree of large size. Its twigs have a golden or red tinge, according to the variety, but on fully grown trees these twigs are not large. To obtain a bright patch of colour plant these Willows in good-sized groups.

### ROUND ABOUT A GARDEN.

#### DREAMS OF NEXT YEAR.

A MAN who is devoted to his garden seldom has the idea of colour arrangements for next year out of his head. Often in sleep he dreams of their surpassing loveliness; or, if he has dined not wisely but too well, his nightmare may take the shape of labels having been mixed and everything coming up where it should not—each colour killing the one next to it, tall flowers where short ones should be, and, oh, horror! Onions somehow thriving where the very choicest Tulips were expected. But, good or bad, the next year of his dreams is never quite fulfilled; nor, by a very long way, is the contemplated next year of his waking ambitions.

allowed to come in contact with the roots themselves at the time of planting. The roots when they become active will soon find out the manure and appreciate it, but in a dormant state it is more like poison than food to them.

#### PLANTING CLIMBING OR PILLAR ROSES.

These strong-growing varieties are often treated as if they could take care of themselves, and therefore require less care in planting than other Roses, whereas the contrary is the case. The hole made to receive them should be 2 feet 6 inches square and 2 feet deep. The existing soil, if fairly good, should be enriched with a liberal addition of farmyard manure, and the planting proceeded with as described in the previous paragraph. If the natural soil, however, be poor and thin, some of this should be removed altogether and better soil substituted. The reason why these extra vigorous Roses require a larger quantity of good soil is because the roots have to support a much larger plant, and as a rule they are intended to occupy the same position for a great number of years."

#### THE BEST ROSES OF THE SEASON.

In compliance with the request in your paper of the 6th inst., I send a list of two dozen Roses that have done well here this season. Against house: Gloire de Dijon, Marie Henriette, Homer, W. A. Richardson. In beds: Ulrich Brunner, Duchess of Albany, Mrs. John Laing, La France, Captain Christy, Victor Hugo, Marchioness of Londonderry, Clio, Marquise Litta, Caroline Testout, Mme. Lambard, Souvenir de Catherine Guillot, Comtesse de Nadaillac, Killarney, Maman Cochet, Souvenir de S. A. Prince, Catherine Mermet, Mme. Chédane Guinoisseau, Princesse de Sagan, and Gustave Regis. SOUTH DERBYSHIRE.

#### NORTH OF ENGLAND.

HERE in Yorkshire Roses have been very late and in many cases disappointing, the cold nights in July and August probably being the reason. Since September came in the Tea Roses on the south walls have been much better. The best twelve Roses I find in the North of England are, for either

beds or walls: Niphotos, Marie van Houtte, Hon. Edith Gifford, Viscountess Folkestone, Lady May Fitzwilliam, Docteur Grill (on wall), Mrs. W. J. Grant, Caroline Testout, Killarney, Liberty, Antoine Rivoire, and Malmaison. If I could only grow three Roses I should choose Marie van Houtte, Niphotos, and Viscountess Folkestone. Stockton Hall, York. P.

#### GOOD CLIMBING ROSES.

I FIND the following Roses succeed well here: Réve d'Or, W. A. Richardson, Reine Olga de Wurtemberg, Longworth Rambler, Euphrosyne and Dawson Rose (both good on old trees), Mme. Alfred Carrière, Aglaia, Aimée Vibert, Bouquet d'Or, Celine Forestier, and Dundee Rambler.

#### SINGLE ROSES.

*Polyantha grandiflora*, *Moschata nivea*, *Moschata alba*, Carmine Pillar (beautiful on a dead tree), Paul's Single White, Irish Beauty (always in flower), Anne of Gierstein, Amy Robsart, and Meg Merrilies. Purity I consider an excellent Bourbon to cover low walls.

Sonning.

J. S.

#### TWENTY BEST ROSES FOR BUTTONHOLES.

In response to several requests we give the following selection of buttonhole Roses. As so many of our Roses of the present day yield beautiful buds it is somewhat difficult to select twenty from such a large number. The following selection can be highly recommended for their shapely buds and also for their freedom in blossoming:—

Anna Olivier, rosy flesh and buff.  
 Bouquet d'Or, pale yellow with copper centre.  
 Bridesmaid, beautiful clear pink.  
 Duke of Albany, vivid crimson.  
 Fisher Holmes, crimson-scarlet.  
 Gloire Lyonnaise, pale lemon.  
 Gustave Regis, canary yellow.  
 Killarney, flesh white, suffused with pale pink.  
 Kaiserin Augusta Victoria, pale primrose colour.  
 Liberty, brilliant velvety crimson.  
 Mrs. W. J. Grant, imperial pink. If possible grow the climbing form as a pillar Rose.  
 Mme. Abel Chatenay, carmine-rose, shaded salmon.  
 Mme. Charles, bright apricot.



## THINK OF NEXT AUTUMN.

Florists fully understand the weakness of man's forgetful nature, so they bombard him at two seasons of the year—this is one of them—with elaborate catalogues. They know that in autumn the average garden needs "doing up" for next spring, and that in spring everyone begins to think of summer flowers. But those who wait to be reminded by the catalogues will never have much of a garden. It is only in spring, when you have your failures and successes in the spring garden before your eyes, that you can properly decide what to do for the following spring, and now is the time to think of next autumn. Consider your garden as it is, as a mere diagram of what it ought to be, with here and there a small space, perhaps, filled in exactly as you would wish it to be next year. Then do not rest until you have decided how all the remaining space is to be filled, and seize the earliest—not, as one usually does, the latest—moment for carrying your decisions into effect.

## A HACKNEYED TUNE OF COLOUR.

The chief defect of most gardens is the muddled arrangements of colour, or else the wearisome repetition of familiar schemes. The most aggravating of these in summer is the old three-fold combination of yellow *Calceolaria*, scarlet *Geranium*, and blue *Lobelia*. That it is surpassingly brilliant and "effective" is true, and if one invented it now for the first time one would be justified in flaunting it over the garden and inviting the whole world to come and admire. But it is so stale and familiar as to be positively irritating now, as even the most taking of tunes becomes

annoying when it is ground out by every barrel organ.

## THE MISSING FACTOR.

Besides, the ordinary gardener of to-day seems to have forgotten the one factor which made the *Lobelia-Geranium-Calceolaria* blaze of blue, red, and yellow, really beautiful and satisfying to the eye when it was first introduced. Then it was always relieved and softened by a backing of white *Marguerites*; but the modern gardener is generally satisfied with the gaudy colours by themselves. Indeed, you will very often see even the blue left out, and a dotted double line of red and yellow alone left to offend the sight along all the narrow borders of a garden. Yet we may learn from these failures of others how to succeed ourselves; and anyone who next year likes to fill the centre of a fair-sized flower bed with white flowers only, using the *Lobelia-Calceolaria-Geranium* arrangement as a comparatively narrow edging, will find that he has a thing of real beauty; for the expanse of white will balance the brilliance of the edging and give a novel charm even to that hackneyed trio of bedding plants.

## CONTRASTS AND HARMONIES.

The reason why the mixture of red, yellow, and blue is so brilliant and "effective"—i.e., productive of a maximum of display at a minimum of cost—is that each of these colours is the complement of the other two, and gains intensity from their presence; but you can get the same effect by using a single line of orange *Nasturtiums*, instead of *Calceolarias* and *Geraniums*, with the blue *Lobelia*. This as an edging to a white flower bed has the

advantage of being narrower, although you lose the crispness of the contrast between the scarlet and the white. It is the white, however, which alone makes either gaudy combination beautiful; and it is a safe rule in colour schemes for all seasons that wherever you use bright contrasting hues you should add plenty of white. You should have more white *Tulips*, for instance, than of any other colour; and there is no discord in the colours of flowers which white will not harmonise.

E. K. R.

EREMURUS ROBUSTUS  
SUPERBUS.

MR. P. W. VOET, "Edenhof," Overveen, near Haarlem, sends an illustration of this hybrid *Eremurus*. Mr. Voët says it grows twice as high as *E. himalaicus*, and flowers much earlier. It was shown in June last for the first time under the name of *E. robustus superbis*, and was given a first-class certificate by the Dutch Horticultural Society.

## THE MOUNTAIN PRIMULAS.

(Continued from page 132.)

PRIMULAS FOR OPEN GROUND OR GARDEN  
USE.

*P. ACAULIS* (Jacq.), syn. *P. vulgaris* (Huds.), *grandiflora* (Lam.), *sylvestris* (Scop.), *hybrida* (Schränk), *uniflora* (Gmel.), *breviscapa* (Murr.). Central Europe and the Mediterranean region.—Plant tufted, leaves large, obovate, diminishing to a winged petiole; flowers single on a weak stem; corolla pale yellow, scentless. January



EREMURUS ROBUSTUS SUPERBUS IN A DUTCH GARDEN.





PRIMULA ELATIOR.

(NEARLY LIFE SIZE.)

to August. This plant has given rise to a large number of the garden varieties grown in English gardens under the name of Primrose.

In the wild state flowers are found of bluish, rosy or red colourings, and hybrids. Willkomm has published *P. balearica* with quite white stemless flowers and leaves with the undersides glabrous. Reichenbach published the variety *Sibthorpi* from the Caucasus, with rosy flowers, leaves very downy beneath, and almost stemless.

*P. ambigua* (Salisb.), a syn. of *P. officinalis*. (Jacq.).

*P. amoena* (Bieb. non Lindl.), syn. *P. elatior* var. *amoena* (Duby), *Bot. Mag.* t. 3252. The Caucasus from 6,000 feet to 10,000 feet.—Very near *elatior*, from which it differs by its obovate leaves, whitely tomentose beneath in the young state, its crimson flowers and its pedicels set with bristling hairs. April and May.

*P. austriaca* (Wettst.).—A hybrid of *P. acaulis* and *inflata*.

*P. bosniaca* (Beek).—A hybrid of *P. acaulis* and *Columnne*.

*P. carpatia* (Fuss.).—A Carpathian variety of *P. elatior*, stouter and larger in all its parts.

*P. cashmiriana* (Hook).—A variety of *P. denticulata*.

*P. Columnne* (Ten.), syn. *P. suaveolens* (Bert), *P. Thomasini* (Gren. and God.), *P. cordifolia* (Schur.), *P. discolor* (Schur.).—Considered by Pax and "Index Kewensis" as simply a variety

of *P. officinalis*. It is, however, very distinct, the leaf being suddenly contracted to a narrow petiole, and cordate at the base, whitely tomentose underneath in the young state and greyish when full grown, and the calyx bell-shaped. It grows in the Mediterranean region on the limestone and the basalt.

*P. cortusoides* (L.). Siberia, China and Japan. Figured in *Bot. Mag.* t. 399.—Leaves large, soft, ovate-cordate, crenate and almost lobed; flowers strong crimson, arranged in an umbel of five to twelve on a stem 6 inches to 8 inches long. April to June. Regel has published a variety *tomentella*, whose calyx is tomentose.

*P. denticulata* (Smith), syn. *P. Hoffmeisteri* (Klot.), *P. telemachica* (Klatt.). Himalayas, from Kashmir to Bhotan, from 6,500 feet to 13,000 feet, and in Yunnan.—A well-known garden plant that has been half a century in cultivation. Leaves lanceolate-elliptical, wrinkled, toothed, more or less mealy beneath; flowers lilac, small, numerous, borne in globular heads on a thick stalk 8 inches to 20 inches high. March to June. There are varieties with pure white and pale lilac flowers, one with leaves edged with white (*fol. var.*) and one with longer flowers of a deeper purple colour (*pulcherrima*).

*P. elatior* (Jacq.), syn. *P. inodora* (Gil.).—Occurring throughout Europe, especially in mountainous and woody places, except in the Mediterranean region. Figured in Reichenbach's "Icones XVII," t. 49. Leaves ovate-lanceolate, abruptly or gradually diminished to the petiole; flowers pale sulphur-yellow, not spotted with orange at the base; pedicels upright and of unequal length. April and May.

Pax has published a variety *genuina* with the calyx tubular-campanulate, and its teeth triangular and sharp, and the capsule cylindrical. Its synonyms are *P. lateriflora* (Goup.), *montana* (Opiz), *domestica* (Hoffm.), *subarctica* (Schur.), *crenata* (Schur.), *montana* (Schur.), *alpestris* (Schur.), and *pyrenaica* (Mieg.). Grenier and Godron have published the var. *intescata* from the Pyrenees, with leaves obovate-elliptical or ovate, gradually diminishing to the wide-winged petiole, with the flower-stalk hardly ever longer than the leaves, with a narrow tubular-campanulate calyx, and a short cylindrical capsule of the same length as the calyx. Lehmann has published *P. Pallasii* from the Caucasus, with a very narrow tubular calyx with very narrow teeth

recurved upwards. There are still the varieties *cordifolia* (Rupr.), *perreiniana* (Flüg), and *macrocarpa* (Pers.), which I see are not in cultivation.

Since the end of the sixteenth century improved forms of this plant, called Oxlips, have been popular plants in English gardens. As it is extremely variable many fine forms have been raised, and are beautiful in the garden, especially in woodland and grouped among shrubs. But, except in England and perhaps Holland, I am not aware that the Oxlip as a garden plant is much known or appreciated. I had hoped to do well with them here (Geneva) from English seed from Wisley, Chislehurst, and elsewhere, but in our climate they lost their brightness. The Oxlip must be seen in England where it is at home.

Geneva.

H. CORREVON.

(To be continued.)

## THE INDOOR GARDEN.

### SOME GOOD FUCHSIAS.

FOR greenhouse decoration during the summer few plants excel the popular Fuchsia; the newer varieties greatly enhance its reputation, so much so that the majority of the older varieties are fast disappearing. I had occasion lately to visit quite a representative collection, and as the present is a suitable time to take cuttings I append a list of varieties which appeared most striking.

#### DOUBLE VARIETIES.

*A. Delaux*, grand purplish blue, splashed carmine.

*Alphonse Daudet*, rather short flower, heliotropelilac.

*Buffon*, a splendid giant white.

*Achilles*, fine rose, red sepals.

*Hector*, bright magenta.

*Graphic*, intense purple.

*Calliope*, huge purple striped.

*Erman*, purple singular reflexed petals.

*Manfred*, loose spreading heliotrope, excellent.

*Claudia*, magnificent pinky rose, one of the best.

*Mme. Carnot*, immense white, extra.

*Mrs. E. G. Hill*, exquisite creamy white.

#### SINGLE VARIETIES.

*Aurora superba*, sepals and petals salmon, orange corolla.

*Champion*, huge white, striped.

*Cameo*, large rose-purple.

*Elsa*, fine ruby-rose sepals and petals.

*Tribute*, bell-shaped, rich violet-purple.

*Lothair*, handsome, heliotrope colour, small flowers.

*Fascination*, palest rose, white sepals and petals.

*Fortuna*, rich rose, good form.

*Jason*, deepest crimson, grand colour.

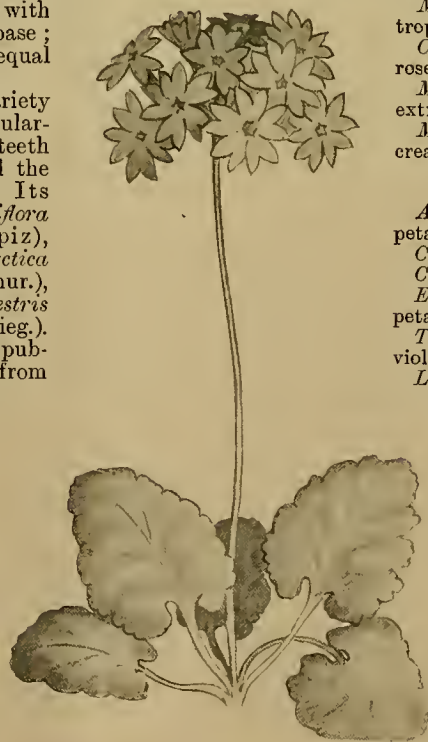
*Tulip*, small salmon flower, very useful.

*Professor Ruskin*, blackish purple, the best.

*Mr. H. Roberts*, an intense salmon-scarlet.

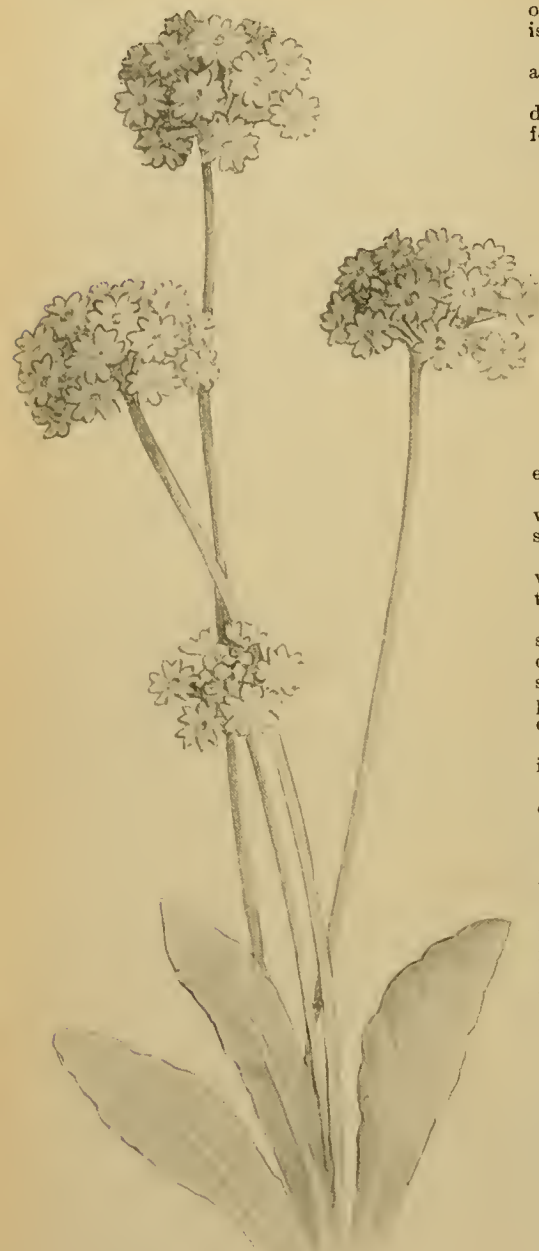
*Swanley Yellow*, a new variety quite in front of anything sent out in this shade.

To conclude, I may



PRIMULA CORTUSOIDES (REDUCED ONE-HALF).





PRIMULA DENTICULATA (REDUCED).  
(See preceding page.)

remark that the autumn propagation of Fuchsias ought to be more generally practised. Almost any shoots will readily root at the present time. They may be inserted several in a pot, or singly, a close frame being an admirable position for them.

Carefully water, and when rooted pot singly in a moderately light compost. During the winter avoid strong heat, a greenhouse temperature not exceeding 45° I have always found suitable. In such a temperature a stont growth is the result, and if the points are taken out good plants ready for potting on are easily secured. A. B.

#### ZONAL PELARGONIUMS AT TAUNTON.

ONE of many features of interest at the recent Taunton Floral Fête was a collection of cut blooms of zonal Pelargoniums exhibited by Mr. Vincent Slade, nurseryman, of that town. They were admirably set up in distinct bunches of one variety, the flowers were fresh and of fine quality, and the collection proved a great attraction for the visitors. Among them were several of Pearson and Sons' new varieties of 1900. Such as

Mary Beton, a very fine pure white variety,

of the finest form, and bold in the truss. This is a decided addition to the white zonals.

Mary Carmichael, warm orange-salmon, a very attractive shade of colour; fine in pip and truss.

Mary Hamilton, rich crimson scarlet with a distinct white eye; flowers large and of perfect form; one of the best.

Mary Seton is of a bright vermilion tint; on the upper petals is a large white blotch, suffused and margined with lake. This is said to be an extremely free-blooming variety.

It will be seen from the foregoing names that Messrs. Pearson and Sons have commemorated in the floricultural annals of the day the unfortunate four Marys, maids of honour to Mary Queen of Scots.

Three varieties distributed in 1890 by Messrs. H. Cannell and Sons, Swanley, were also seen in the collection in very fine character, viz.:—

Lady Lanrier, clear salmon, with a large white eye; pip large, stout, and of fine form.

Mrs. Kendal Barnes, intense crimson, flushed with purple, pip large and finely formed; quite striking.

Winston Churchill, clear magenta-pink, with a well defined white centre, covering much more of the surface of the corolla than is usually seen.

Two new double zonals of the same year were seen in the collection: Golden Glory, one of the orange-tinted section, the flowers bright and striking, and of the best form; Mme. Carnot, pure white, producing its large well-formed flowers on bold trusses.

Some of the new double zonals of 1899 were also in the collection; I made a note of the following:—

Charles Gonnod, large bright scarlet, white centre; an excellent variety.

Mme. Goyeux, soft rosy pink, white in the centre; pleasing and effective.

Mme. H. Thibaut, pale centre, margined with bright scarlet, large flower and truss.

M. J. B. Tarrone, white centre, heavily margined with scarlet, and having a shading of magenta, large truss.

Reine Baxin, soft salmon margin on an orange tinted centre; well formed flowers and fine trusses.

To the foregoing may be added one of 1900, Fraicheur, white centre with a narrow band of rose round each petal; distinct and pleasing.

These double zonals of 1899-1900 are all white, and known as the Mme. Jules Chretien type, having pale centres with a bedding or margin of some colour, a type that is being rapidly improved and coming into favour.

Of the new single zonals of 1899, six raised by Pearson and Son are very good:—

Barbara Hope, pale salmon-pink, with white eye; large and of fine form.

Cerise, clear cherry red, distinct in colour and well formed.

Florence Miskin, cerise-crimson, with light eye; extra fine.

Lilian Duff.—This is described by the raisers as "a magnificent crimson in the style of Herrick, but finer in size and form; the pips are 3 inches in diameter, the broad overlapping petals forming an almost perfect circle; a splendid novelty."

Mary Pelton, delicate soft salmon, of a very pleasing shade of colour; flowers large and of fine form.

Mrs. Charles Pearson, rich orange-salmon, with conspicuous white eye, described as "a flower of immense substance and perfect form, the most beautiful zonal in commerce."

Of Messrs. H. Cannell and Sons' distribution in 1899 three in particular struck me as very fine:—

Mrs. Fisher, soft satiny salmon of an attractive shade; large pips produced on bold trusses.

Snow Storm, large, stout, clear, pure fine pips on good trusses.

The Sirdar, a fine scarlet, large in size and of the best form; must become a popular variety.

Some very fine single zonals were among the batch of new varieties sent out in 1898, and of these Andrew Lang, scarlet, white blotches; Conan Doyle, clear salmon-pink; Hall Caine, bright cherry red; Ian Maclaren, deep shade of salmon,

becoming paler toward the edges; Mary E. Wilkins, pale, violet-pink, a pretty shade of colour; Mark Twain, white ground, freckled and flaked with carmine on the petal edges; Mrs. Ewing, pale salmon; and Rudyard Kipling, rich crimson-purple, were all raised by Messrs. Pearson and Sons. One fine variety came from Messrs. H. Cannell and Sons, viz., W. G. Gordon, rich clear scarlet, with white eye.

Some varieties of older date are well worthy a place in collections. Shades of scarlet and crimson: Chancer, Crabbe, Dr. Macdonald, E. Bidwell, Herrick, J. H. Arderne, and Shelley; blush: Duchess of Marlborough; salmon: Magnificent, Mrs. D'ombrain, and Midsummer; pink: Gertrude Pearson, pure rose pink; white: Eucharis. Then of the newer reticulated section, Dryden, bright rosy red, with large white blotches. A few of the finest double-flowered zonals of the same date are Mme. Laundry, deep salmon; Pasteur, brilliant rose, very large trusses; and Thomas Meehan, pale rosy lake, semi-double, forms enormous trusses.

In the collection could be seen some very fine double Ivy-leaved Pelargoniums, which are probably not so well known as they deserve to be, viz., Colonel Baden-Powell, deep mauve, very fine; Mrs. Hawley, bright cerise, shaded with rose, extra fine; Mrs. J. G. Day, crimson-scarlet, very bright; Leopard, lilac-pink, heavily blotched with crimson; Rose Queen, soft rosy pink; and Achievement, soft salmon-pink, very large semi-double. R. DEAN.

## NURSERY GARDENS.

### CHINA ASTERS AND ANTIRRHINUMS.

NOTES MADE AT MESSRS. SUTTON AND SONS.

A VISIT to Messrs. Sutton's grounds is always a wholesome reminder of the wonderful wealth of annual plants that is at our disposal. A special visit on August 9, for the purpose of observing the progress that has of late years been made in the China Asters, showed the wonderful variety that has been achieved in the many classes of this popular autumn flower.

To describe even a tenth part of the flowers on view would be a lengthy task, but the object of the visit being in the first place to note the very cream of the collection from the point of view of the amateur with a refined colour-eye, it comes within manageable bounds.

There can be no doubt that as beautiful plants bearing beautiful flowers the first to be mentioned must be the comparatively new Comet and Ostrich Plume sections, and among these the pure whites and the dainty pinks and lilacs stand out conspicuously for charm and refinement. Among the Comet class may be mentioned for remarkable beauty Giant Comet Peach-blossom, a tender salmon-pink, just the kind of colour that has so long been wanted, and Blushing Beauty, another dainty colour inclining to mauve-pink. These two, though both lovely, should not be placed together, but both are good with one of the fine whites, such as the white Giant Comet of their own class. A beautiful flower is Light Blue, the colour being really a very pure and silvery tone of lightest lavender. This one harmonises delightfully with another known as white passing to azure blue, of a slightly deeper lavender-lilac. Blue Comet is also a very fine thing. There is also among the Comets a pretty new colouring, a clear lemon-white, known as Comet, light yellow. A good new colouring among the medium-sized Comets is a coppery rose called Meteor.



The Ostrich Plume Asters may for all ordinary garden purposes be classed and described with the Comets. They are of nearly the same free habit, and are breaking into the same good range of colourings. Another fine flower in the larger growing, free branching Asters, which are the kinds most sought for by amateurs of taste, is Empress Frederick, a large white flower of the Comet type, but the kind is hardly as yet fixed, a good number not coming true.

The fine single purple Aster *sinensis* was only beginning to show flower; it is a plant for the second half of September. With it should be grown the vigorous, long-stemmed Vick's white, a tall, branching kind, grand for cutting, and a fine garden plant. Of this Messrs. Sutton have a good new break in a beautiful blush variety which they know as Mammoth Aster, shell pink.

Among the shorter growing Asters some of the best are in the class known as *Pæony Perfection*, of the shape formerly known as Truffants. The variety called Azure Blue is excellent; its colour is that clear silvery lavender-lilac that is always one of the best of the Aster colourings. In this section is a striking flower of very deep but splendid colour, exactly described by its name Blackish Purple. In the smaller types of this section there is also a beautiful blue.

The Triumph section contains excellent flowers and beautiful colourings, in which the so-called scarlets, of a fine rosy-blood colour, are conspicuous. This grand colouring, since its welcome introduction, has been specially brought forward by Messrs. Sutton, and, among the hard pinks and garish magentas to which Asters are so naturally prone, it is a departure that cannot be too warmly appreciated by those who love beautiful colouring. Among the Triumphs is one called Royal Purple of an unusual rich ripe mulberry colour.

A large proportion of the trial ground devoted to Asters is still given to the dwarf bedding classes. Among these, one called Bright Rose is of a beautiful tone of colour. Still smaller in growth are the dwarf bouquet kinds, among which the best colours, other than white, are the scarlet, purple, and dark blue. Little Gem is a class for pots, of small, compact habit, not over 10 inches high.

Among the Crown or Cockade Asters are many pretty flowers, notably lilac and white, and among the miniature, crown-flowered series a remarkably bright flower, scarlet and white, called Jewel.

There are still many amateurs who, knowing only the China Asters of some years ago, of stiff shape and hard or unpleasant colouring, say they do not like Asters, and it is not infrequent to find that gardeners are forbidden to grow them. If this should meet the eye of any of these, I venture to think that a welcome surprise awaits them if they will give a trial to the kinds named in the foregoing notes.

It is very striking in these grounds to see the extreme cleanness of the stocks. There is a good half acre, perhaps more, of Asters, in many hundreds of varieties, and it is the

rarest thing to see a rogue. When one knows that it takes years of work to "fix" a variety it is a sight that inspires a feeling of very comfortable confidence in and admiration for the unsparing care and patience that our growers of the highest rank devote to their stocks before they are offered to the public.

A great advance is also to be seen in Messrs. Sutton's grounds in Antirrhinums, the old favourite Snapdragons of our gardens. They are in three divisions—tall, intermediate, and dwarf.

Among the tall kinds are two of singular beauty—Coral Red, a beautiful tint of full rosy pink, with white tube, and Carmine, a deeper, whole-tinted flower in the same kind of colouring, not yet in commerce; Cloth of Gold, a splendid yellow; Pure White, and a flower of refined beauty called Rosy Morn, white, flushed with tender pink, with a yellow

heavily fringed margin; the colour a pleasing and delicate shade of rose-pink. It is doubtful if any have surpassed this beautiful hybrid among the number that have since been introduced. Derived from the intercrossing of *L. digbyana* and *C. Mossiæ*.

*Lælia digbyano-purpurata*.—This was raised by Mr. J. Seden in Messrs. J. Veitch and Sons' nurseries from the parentage indicated in the name. It has proved one of the most variable, both in colour and the character of the flowers. In some cases the lip has been short and no fringe apparent on the outer edges of the front lobe, whereas extreme fringes and elongated front lobes have appeared, as in the variety King Edward VII. It has a good constitution, and thrives well under Cattleya house treatment.

*L.-C. digbyano-Triana*.—Raised in Messrs. J. Veitch and Sons' nurseries from the parentage indicated in the name. It is one of the most delicate rose-tinted varieties of the section.

*L.-C. Thorntonii* (*digbyana* × *gaskelliana*) is a most desirable variety, with free habit and pale rose-tinted flowers. It first flowered in Mr. T. W. Thornton's garden, at Weedon, in 1897.

*L.-C. digbyano-Mendelii* was raised by M. Maron, of Brunoy, France. It was exhibited at the Royal Horticultural Society's meeting on March 14, 1899, as *L.-C. Imperatrice de Russie*, and will be found described under that name in THE GARDEN report of the above-mentioned meeting. It is not so fine as most of those previously mentioned, but its delicate shade of colour is most attractive.

*L.-C. Mme. Chas. Maron* was also raised by M. Maron from the intercrossing of *C. Warscewiczii* and *L. digbyana*. From such a fine parent as *C. Warscewiczii* one would have expected a much finer offspring than that exhibited at the Royal Horticultural Society's meeting on September 24, 1901. It is larger than most of the section, but it is wanting in substance and colour and is a disappointment.

*Lælia Mrs. M. Gratrix* is one of the most distinct, and is exceedingly variable. It was raised by Mr. J. Seden between *L. cinnabarina* and *L. digbyana*. The orange-red which predominates in all hybrids derived from the influence of *L. cinnabarina* is most prominent

here, rendering it one of the most distinct and desirable of the section.

*L.-C. Edgar Wigan*.—The subject of the accompanying illustration was exhibited at the Temple show, 1901. It is derived from *L.-C. Aphrodite* and *L. digbyana*. The first-named parent is itself a hybrid between *C. Mendelii* and *L. purpurata*. It is one of the most beautiful of the section, and embraces many of the qualities of *L. digbyana*, the heavily fringed front lobe of the labellum being most prominent; the colouring of the lip rosy pink, shading to delicate lilac, with some sulphur-yellow in the throat.

*Lælia Helen* (*tenebrosa* × *digbyana*).—Raised by Messrs. J. Charlesworth, Heaton, Bradford, and was exhibited at the last Temple show. The bronzy suffusion infused through the influence of *L. tenebrosa* renders it most distinct and attractive. Like most other hybrids derived from *L. tenebrosa*, it will no doubt improve as the plants gain strength.

H. J. CHAPMAN.

Oakwood, Wylam-on-Tyne.

## RECENT PLANT PORTRAITS.

THE fourth part of the seventh volume of *Lindenia* contains portraits of the following four Orchids:—

*Dendrobium nobile* var. *Jaspideum*.—This is a very handsome and deeply coloured form of this well-known Orchid, most of the petals being mottled



LÆLIA-CATTELEYA EDGAR WIGAN (MUCH REDUCED), ONE OF THE MOST BEAUTIFUL OF THE HYBRIDS.

lip. The scarlets and deep crimsons, yellows and whites are also excellent in all the sections. G. J.

## ORCHIDS.

### LÆLIA (BRASSAVOLA) DIGBYANA HYBRIDS.

NONE of the Cattleya family are more popular at the present time than the hybrids that are due to the influence of *Lælia* (*Brassavola*) *digbyana* as one of the parents. Delicate colouring is a characteristic feature of this now somewhat large section of hybrids. The chief complaint that can be urged against them is that the flowers do not last many days in perfection after they have fully expanded, but as the whole section of these hybrids possess robust constitutions and rarely fail to flower satisfactorily when once they have reached the flowering stage, they deserve extensive cultivation. The following is a brief summary of the different hybrids that have flowered to date:—

*Lælio-Cattleya digbyano-Mossiæ*.—This hybrid first flowered in May, 1879. It is a flower of fine shape, the lip being very broad and with a



with a deeper shade of colour than their ground, and with a fine clearly defined white ring round their centre.

*Odontoglossum* × *Adrianum* var. *leopardinum*.—This is one of the crispum section of the family with medium-sized white flowers, heavily spotted with rather dull brown.

*Habenaria medusa*, a curious variety with deeply serrated flowers of the purest white.

*Lobelia-Cattleya* × *Pauli*.—This is a delicately beautiful variety with medium-sized flowers and handsome deep rosy purple lip.

The second part of the *Revue Horticole* for September figures a group of small and insignificant flowered Cinerarias named hybrida polyantha with apparently nothing whatever to recommend them. W. E. GUMBLETON.

## THE FRUIT GARDEN.

### PYRAMID PEAR TREES.

**F**EW fruit trees are more profitable than the pyramid Pear, and for this reason—they require less space than standards, do not interfere with other crops, and are more easily attended to. For gardens restricted in size I would certainly recommend trees grown thus. Some varieties are more suitable for pyramid training than others. A few of the Pears grow very strongly, and later I will note a few of our best varieties grown in this form. Of course even with pyramid trees there must be proper pruning, or, what is better, stopping the shoots when

young. Where this is well carried out much wood that does harm in crowding the inner portion of the trees may be removed. I have heard some growers condemn this method of culture as being unnatural, but a great deal depends upon culture. This season, however, our best cropping trees are the pyramid Pears, others with more freedom of growth have very few fruits. It is surprising what splendid fruit pyramid Pears will produce when given the necessary attention and manuring; the latter, I fear, is often overlooked.

With pyramid Pear trees root pruning in the early autumn should not be forgotten. This is more necessary with young trees, say from three to ten years old. I need not go into the system of root pruning necessary to promote a fruitful growth; it is frequently touched upon in these pages, and is very simple. A great deal depends upon the age of the trees, and with young gross trees in many cases lifting would be preferable to pruning. As regards planting, if ample room can be given between the trees it is much better for the ripening of the fruit—there is nothing gained by crowding—but if the trees are grown on the Quince stock the growth is less vigorous and less space is needed. Most of the pyramid Pears do best on this stock; there is only a limited number that are best on the free or Pear stock. For amateurs pyramid fruit trees have a special claim. Trees two or three years old begin fruiting at once, and though the crop at the start may not be large the fruits are good, and each year increase in quantity; when planted alongside the garden walks they do not unduly shade vegetable crops, and are easily reached when requiring attention.

The following are the best varieties for pyramids. I have omitted the very early kinds, such as Doyenné d'Été and Jargonelle, Clapp's Favourite, and Williams' Bon Chrétien. There can be no question but that the large fruiting varieties, as Pitmaston Duchesse, are far better grown as pyramids than in any other form, for then the heavy fruits are protected from high winds. Another important point with pyramid fruit trees is their protection from high winds and frost when in sheltered gardens. One of the best varieties is undoubtedly Louise Bonne of Jersey; it is a sure cropper and a delicious fruit. The tree is shapely, not a gross grower, and it is not fastidious as to soil or situation. On a light soil Souvenir du Congrès, a very good September Pear, does well as a pyramid, but here it thrives on the Quince stock, but needs double grafting. The fruit is very juicy and melting, and is a great favourite when it succeeds. The newer Dr. Jules Guyot should be in all gardens; for an early supply this is not unlike the last-named, but hardier and a compact grower on the Quince, and, what is better, it bears profusely and regularly. Though it does not keep long it is a very handsome fruit. Beurré Mor-

tillet, also a late September fruit, a recent introduction, is a valuable pyramid Pear. This year it has borne grandly, whereas old trees on walls have very few fruits; it does best on the free stock or double grafted. Another new Pear that with us has never failed to crop since it was planted is Rivers' Conference, a large, long, handsome, well-flavoured fruit with deep green skin, the flesh when ripe pink coloured; it keeps well into November. This is a valuable pyramid Pear for gardens where only a few varieties are grown, for it is remarkably prolific.

I now come to the October Pears, and here we have the best quality, and many of them do well in pyramid form. Louise Bonne should have a good place in the list for the month named. Another very fine cropper is Durondeau. It cannot be compared as regards quality to such kinds as Marie Louise or the beautiful Doyenné du Comice, but I advise its culture for its heavy cropping, its shape, and colour, and in some soils the flavour is not inferior. Next on the list is the valuable Marie Louise, which is good in well-drained soils. Marie Louise d'Uccle does well in heavy soil. The Queen of Pears, Doyenné du Comice, does grandly as a pyramid. This should be largely grown; it has no equal as regards flavour, and, though it is not so free cropping as some kinds, if several trees are grown in different parts of the garden a better result is secured. Pitmaston Duchesse I have referred to as good for a pyramid. Thompson's also is good, and Emile d'Heyst, a pretty Pear, is very prolific. Beurré Diel and Beurré Fouquier are both excellent, and space should be given to such excellent keeping kinds as Nouvelle Fulvie, Josephine de Malines, and Marie Benoist. These latter do grandly grown thus for late supplies.

G. WYTHES.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

## HERETICAL SENTIMENTS.

[TO THE EDITOR OF "THE GARDEN."]

**S**IR,—I must confess to feeling considerable sympathy with "R. H. W.," and as nobody else has expressed any he may think mine worth accepting. No one admires glorious colour effects more than I do, but it is, I think, useless to lay down this kind of gardening as the only way, for there are certainly more people who are not able to compass it in their gardens than lucky souls who have space and labour—leaving money aside, though it is essential—to make a chief end and aim of broad effect. In all gardens of any importance there is also the kitchen garden. Massing flowers would be impossible here, and it would be a pity to be content with massing Cabbages, hence there are very likely some hundreds of yards of edging and border where spotty planting—to give it its crudest name—of flowers is surely preferable to having no flowers at all. Personally, I think those old-fashioned kitchen gardens, where the vegetables are in squares with flowers round all the edges some 3 feet inwards from the paths, are delightful. Probably the plants in such a place have been put in without much planning beforehand, but although we may find a clump of flaming scarlet *Salvias* next to a group of *Delphinium Belladonna*, or late pink *Roses* against purple *Asters*, a walk round is full of individual interest, and the plants seem more friendly than where they are grouped by the hundred for distant effect. A necklace of diamonds is a beautiful possession, but those who cannot afford it, and even some of those who can, may like to possess a collar of that deep Indian gold, much worked and set with many-coloured jewels of all sorts and sizes. In a garden where there are magnificent masses of *Pæonies*, *Tulips*, and every sort of grand effect we may yet find pleasure, for a change, in visiting the mixed "supply" border,



PYRAMID PEAR TREES (LOUISE BONNE OF JERSEY) IN THE R.H.S. GARDENS.



where we can get sharp contrasts and see all-round things.

I do not see that because a border is planted in mixture that it is necessarily "crowded." Each plant or group of plants may have quite as much room as if its next door neighbours on both sides were of exactly the same pattern. Is it not one way to discontent the smaller cultivator with his possibilities if we insist so strongly upon massing, everywhere, and in all cases? For, done in such gardens as even wealthy folk must put up with if they live in or near towns, massing is often not a success. As an instance I may cite a walled square I saw not long ago where the whole length of four 5-foot wide borders was filled with red herbaceous Phloxes. The effect—there was a colour effect!—was simply one of extreme monotony, and I think, in this case, group planting, even in threes, of a variety of different plants would have been infinitely preferable and given much more pleasure and interest for a much longer season. I hope some other readers will give their opinions, for as a rule it is the owner of the moderate or ordinary garden, from one to five acres might perhaps be a fair limit, who most needs teaching, and is most eager for it. One wants to make the best of the ground available, and where it is but a small space to consider how it shall be made most interesting. I am inclined that for moderate gardens there is most pleasure and interest in an arrangement like that of the Bath Botanical Gardens—plenty of individualising, and some grouping, and some massing, but no preponderance of either. These gardens are really not "spotty," yet there is a constant succession of varied colour, and plants in singles and trios are very frequent, while all the year round there is some fresh interest, which would be lacking if there were one-fourth or less of the plants in broader masses of each.

M. L. W.

### BAMBOOS IN INDIA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—IN THE GARDEN of July 19 it is stated that owing to exposure to cold winds of March and April the hardy Bamboos grown in England drop their foliage after having withstood severe frost in winter. Bamboos grow in this country between elevations of 100 feet to 12,000 feet, and as a rule they drop their leaves in March and April, not on account of cold wind, but because it is the Indian spring, when the majority of trees drop their leaves and almost immediately afterwards burst out into fresh foliage. Is it not possible that the Bamboo in England is simply following what it used to do in the East?

Darjeeling, India.

G. L. S.

### PERENNIALS AND ANNUALS FOR BORDER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Could you please kindly favour me through your valuable paper with a list of flowering and showy perennial plants most suitable for a border exposed to the sun. Height for back to be about 5 feet or 6 feet, sloping to the front to about 2 feet or 18 inches. The soil is rather stiff, with grand old Magnolias on a wall behind. J. C.

[For the spring, which we may consider as extending to the first day of June, the following and handsome perennials: *Doronicum plantagineum* excelsum Harpur Crewe, which often commences to expand its large golden stars in March, the Lyre Flower (*Dicentra spectabilis*), both about 3 feet in height; herbaceous *Pæonies* that flower at the end of May, around which may be planted the stronger golden Trumpet Daffodils, such as Maximus, Emperor, and Golden Spur, whose rich yellow associates well with the young carmine shoots of the *Pæonies*; *Achillea Ptarmica* fl. pl. The Pearl generally begins to flower in May, growing to a height of between 2 feet and 3 feet, and extending its blooming season until the autumn.

Masses of May-blooming Tulips are very effective in the border, especially highly-coloured sorts, such as *gesneriana* major. At the close of May

the giant Oriental Poppy provides a blaze of vermilion, and the German Irises disclose their manifold tints. Good varieties are Princess of Wales, white; aurea, golden-yellow; flavesceus, light yellow; atropurpurea, deep purple; Bridesmaid, white and blue; Mme. Chereau, white and lavender; Victorine, white and violet; Queen of the May, rosy lilac; and pallida, lavender.

Of summer-flowering perennials there is a large selection, of which the following list contains some of the best: For the back of the border, Hollyhocks, the Plume Poppy (*Bocconia cordata*), Delphiniums, and *Rudbeckia laciniata* Golden Glow, the latter an August bloomer, each of which with good culture will attain a height of 7 feet or 8 feet. Of plants of less commanding stature we have *Alstroemerias*, the hybrid *A. chinensis* being the most ornamental, height 3 feet; the taller Campanulas, of which the newer forms of *C. persicifolia*, namely, *C. p. Moerheimi*, white, semi-double, and Backhouse's variety, single white with very large flowers, are particularly fine, *C. grandis alba*, *C. lactiflora* and its white form; *C. latifolia*, and the Chimney Campanula (*C. pyramidalis*) for August flowering. *Chrysogonum virginianum* is a pretty plant, growing 18 inches in height and bearing yellow flowers through many weeks; and *Erigeron* (*Stenactis*) *speciosus* has an even more extended blooming period, often holding its lavender, yellow-centred star flowers into October and growing to a height of 4 feet. The Globe Thistles and Sea Hollies are valuable for their metallic blue flowers; of the former *Echinops* Ritro is one of the best, and of the latter *Eryngium oliverianum* and *E. amethystinum* are the most handsome species. The latter rarely exceeds 2 feet in height, but the two first-named often reach 4 feet. Of Day Lilies the clear yellow *Hemerocallis flava* (18 inches) and the large orange *H. aurantiaca* major (3 feet) are the best. *Galega officinalis alba* is a handsome plant, forming a large bush covered in the summer with white Pea-like blossoms, height 4 feet.

The Cape Hyacinth (*Galtonia candicans*) is a bulb that has a telling effect in the border when planted in large groups. Its pyramidal heads of drooping white bells, with good culture, reach a height of 5 feet. *Inula glandulosa* bears large, flat star flowers of bright orange, and is 3 feet or more in height under favourable conditions. Two fine summer-blooming Irises are *I. orientalis*, or ochroleuca, white and yellow, and *I. Monnieri*, golden, both 5 feet in height. *Libertia grandiflora* produces an abundance of white flower-spikes 3 feet to 4 feet high. Of the Evening Primroses the tall *Oenothera lamarckiana* (5 feet or more in height) and *O. fruticosa* or *Youngii* (3 feet) are good border flowers, as are *Ornithogalum pyramidale* and *Camassia Leitchii*, white



PYRAMID PEAR TREE (BEURRE DIEL) IN THE R.H.S. GARDENS, CHISWICK.

and pale yellow respectively, 3 feet in height. Herbaceous Phloxes of good colour add much to the brightness of the border, and under careful cultivation attain a height of 3 feet or more. Good varieties are Mrs. E. H. Jenkins, white; Coquelicot and Etna, salmon-scarlet; Le Siecle, rose-pink; and Countess of Aberdeen, white, with carmine eye; *Platycodon grandiflorum* and its white variety, plants bearing large purple and white flowers, 2 feet in height; the old double white Rocket, a charming subject growing 2 feet or more in height and producing long trusses of fragrant flowers; *Scabiosa caucasica* (2 feet), large pale blue flowers, there is also a white form of this; and *Sidalcea Listeri*, a beautiful plant, 3 feet, bearing long spikes of flesh-pink flowers. Many Lilies are admirably adapted for the embellishment of the herbaceous border. Of these the fairest is the favourite Madonna Lily (*L. candidum*). Other species of easy culture are *L. elegans* or *thunbergianum* and *L. umbellatum* in their many named varieties, *L. croceum*, *L. excelsum* or *testaceum*, the Martagon Lily and its white variety, the scarlet Turk's-cap (*L. chalcedonicum*), and the Tiger Lilies, of which the best are *L. tigrinum splendens* and *L. t. Fortunei*.

In the autumn *Anemone japonica alba* bears its white flowers after growing to a height of 4 feet. The Michaelmas Daisies or perennial Asters are a large family indispensable in the autumn garden. Of these the following are good: *A. Amellus* *bessarabicus*, 3 feet, early, with large, violet-blue flowers; *A. ericoides*, 2 feet 6 inches, with countless tiny white blossoms; *A. cordifolius* and its



varieties, 4 feet; A. Robert Parker, lavender, and A. Purity, white, 6 feet; A. acris, violet, 3 feet; A. patens, blue, 2 feet; and A. Archer Hind, purple, 4 feet. Chrysanthemum maximum bears large white Daisy-like flowers. The ordinary form grows 4 feet in height, but the newer and more floriferous variety rarely exceeds 2 feet. Perennial Sunflowers are best known by the varieties Helianthus multiflorus and its double form Soliel d'Or, 4 feet; but H. rigidus Miss Mellish and H. latiflorus, 6 feet, bear finer flowers. Pyrethrum uliginosum is a graceful plant, 5 feet in height, bearing large narrow-rayed white Daisy-like flowers.

In the winter the Algerian Irises (I. stylosa and its white form) and Christmas Roses will prevent the border from being flowerless. Care should be taken in planting that the flowers shall not give a formal effect. Lines, circles, squares, and such-like figures should be rigidly avoided and the different species planted in informal groups. Colours that do not harmonise must be kept apart, and an endeavour should be made to lead up to the brightest tones by a succession of graduated tints. Though the tallest plants should, as a rule, be relegated to the back of the border and the dwarfier forms to the front, this arrangement should not be carried out throughout its entire length or the effect will be stiff and monotonous. Here and there tall plants should be brought forward, and in certain places dwarf plants should run to the back of the border, such disposition of the contents affording that charm of informality which captivates the artistic eye.—ED.]

## GARDENING OF THE WEEK.

### THE FRUIT GARDEN.

#### STRAWBERRIES.

**N**EW plantations that were made as soon as the runners were sufficiently rooted having now made satisfactory root progress, will be greatly benefited by a thorough watering with liquid manure when the soil is sufficiently dry. We have followed up this practice for many years, and have found it greatly strengthens the plants, but the manure must be applied while growth is still active. This treatment is particularly to be recommended for young plants cultivated for early fruit or for producing early runners for layering. Older plantations also derive benefit from this mode of treatment. Failing liquid manure a dressing of soot and bone-meal should be given. Keep the plants free from runners and the soil between them quite clean. Protect alpine varieties from birds, and keep the plantations clean.

#### ROOT PRUNING AND LIFTING.

A diversity of opinion is held respecting the utility of this work, but it must be remembered that circumstances which govern the desirability or otherwise of carrying it into effect are not always taken into account, hence the conflict of views held. Trees, however, that are unfruitful owing to exuberant growth may often be made fruitful by being properly root pruned, &c. Attacks of canker when caused through the roots having penetrated into ungenial subsoils may also be cured or at least diminished by this treatment. It is advisable to make the work extend over two years by pruning the roots on one side only of a tree in a season. The best time to do this work is in early autumn. When the object is to lift the roots out of unsuitable subsoils an opening should be made near their points sufficiently deep to reach the lower ones, and the soil carefully worked from amongst them until they are liberated, when the opening should be refilled, and if necessary with fresh soil, mixed with suitable ingredients, such as bone-meal, wood ashes, mortar rubble, &c. First fill the vacant space to within 2 feet of the top, and then, as the filling proceeds, regularly relay the roots amongst the soil to within 6 inches of its surface, making the soil quite firm. In

dealing with trees that are unsatisfactory owing to having made strong unfruitful wood, a trench should be made, according to the size of the tree, from 3 feet to 6 feet from the stem, working beneath the tree, and severing any tap roots to be found. Make the ends of the roots perfectly smooth by a clean upward cut, and lift the roots nearer to the surface of the soil. Treatment of this description usually promotes fertility the second year after root pruning.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

### THE INDOOR GARDEN.

THE earliest Persian Cyclamen are now coming into flower, and will make a fine display throughout the autumn months. They should now be moved from the cold frames into a well ventilated structure and afforded a little fire-heat. Care should be taken to keep them absolutely clean. The least check now will tell against them when they come into bloom. Shading, too, must be discontinued. Ericas should now be placed in a light and airy house. Fire-heat should never be applied except to keep out frost or damp. Destroy mildew by dusting the affected parts with flowers of sulphur. Water with care.

#### TREE CARNATIONS.

These should be moved to a light and airy structure. Fumigate with XL All occasionally to keep thrips and green fly in check. Plenty of air should be given on all occasions while the weather is favourable. Poinsettias will not bear cool treatment any longer; a low temperature now will soon cause the lower leaves to fall. Plenty of light and a moderately warm atmosphere should be given them. Manure frequently.

#### COLEUS THYRSOIDEUS.

Discontinue stopping the shoots of this useful winter-flowering plant, so as to allow them to produce flowers. The plants should be placed in a light position and kept near the glass in order to keep them strong and short jointed. The temperature most suitable for this Coleus in winter is one ranging from 60° to 65°, according to the state of the weather.

#### VIOLETS

should be removed and planted in frames or pits facing south, choosing a sheltered position if possible. Some rough material should be placed at the bottom of the frames, so that when about 9 inches of soil is put in the plants will be a foot or so from the glass. Soil from old Melon and Cucumber beds will make a good compost. Water well after planting, and shade for a few days. The lights are better left off until signs of frost appear. Violets can also be successfully grown in pots. Plants for this purpose should be placed in 6-inch pots, choosing the strongest plants and letting them remain outside as long as possible. After housing place them in a light position, giving plenty of air.

JOHN FLEMING.

*Wexham Park Gardens, Slough.*

### THE KITCHEN GARDEN.

#### MAKING A NEW GARDEN.

SEPTEMBER is a capital month for preparing the land which is intended to do duty as a kitchen garden, either by making additions or creating new ones. Much will depend on the after-success as to the way it is treated in the first instance. Choose, if possible, a piece of old pasture land that is well sheltered from the north and east winds. Though it does not often fall to the lot of the gardener to pick and choose the site, it is nevertheless of great importance that a good one should be selected if good crops of vegetables at all seasons of the year are desired, and also hardy fruits are to be produced. It should also be taken into consideration that generally speaking a kitchen garden after once it is made is expected to do duty for many years to come, and when well and systematically managed there is no reason why it should not.

After deciding on the arrangements as to the walk and plots, a proper system of draining should

be thoroughly carried out. Four-inch agricultural pipes should be used for the purpose, and these should be placed not less than 3 feet 6 inches, or better still 4 feet, to allow for deep trenching. The walks also should be well made and ample provision allowed for carrying off the water, and a good durable edging, such as blue Staffordshire tiles, securely fixed in concrete, should be arranged. This is far better than turf, Box, or any other live edgings, as it entails much less labour, as these require no upkeep, and the paths are easily kept free from weeds without doing any damage by using weed killer, a matter of no small importance.

Trenching should then be proceeded with, beginning at the lowest end of the plot should the land be level, but if on the incline begin at the highest point, carting away sufficient soil to the spot where it is intended to finish. Allow plenty of room for working. Do not hesitate to go down quite 3 feet or 3 feet 6 inches, and work in plenty of manure from the farmyard, and any kind of garden refuse may be buried in at the bottom as the work proceeds. Bring up the lower spit to the surface. No attempt should be made to break it to pieces, but leave this for the weather. After the trenching is completed give a thorough dressing of soot, wood ashes, and lime, and should the ground be stiff add plenty of road scrapings, old mortar rubble, and such like, and should there be an absence of lime in the ground a good dressing of chalk will be most beneficial. If left in this state till early spring, and then again dug over, it should be in splendid condition for growing next season's crops of all kinds.

This is also the best season for renovating plots in old gardens which have been occupied with bush fruits, Strawberries, and the like for some years. Everything in the way of rubbish should be burnt on the spot, a good dressing of long farmyard manure applied, and the ground thoroughly trenched, after which give a good surface dressing of lime and wood ashes. Add about 2 inches or 3 inches of fresh fibrous soil, good loam for choice. This should be left till March and then forked in, after which any vegetable crop should do well.

#### GENERAL WORK.

As most plots in the garden will now be occupied with growing crops, hoeing, thinning, and weeding will have to be attended to. Make further sowings of Turnips, Spinach, Lettuce, Endive, and Cauliflowers, and should the weather continue open these will prove serviceable next spring.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### THE FLOWER GARDEN.

THE propagation of flowering plants for another year should have commenced in the middle of August, but circumstances sometimes do not allow of destroying the beauty of beds and borders so early in the season, as taking up roots and cuttings necessarily does to a more or less extent, and it is often delayed until the present for that reason. Now, however, no time should be lost in pressing on with the work. Geraniums and Mesembryanthemums might easily have been struck in the open in August, but now they require the hot airy atmosphere of a propagating house or frame. Shallow boxes with a minimum of light sandy soil in which to strike, with very little water, are the best conditions for Geraniums; moisture on the surface of the soil is conducive to damping off. Now is a good time to

#### PROPAGATE THE GAZANIA.

If the cuttings are inserted at once they strike freely in a cold frame, but if delayed they will require bottom heat. It is not much use potting up old plants, as spring-struck plants are worthless; so the best plan is to propagate now in boxes and leave them in cold frames, protecting them only from frost. In the spring they can be planted out and will flower early in May. If coddled up in warm pits they make poor weak growth not worth planting out, but cold treatment gives short healthy plants. Gazania splendens, I find, is the best variety.



The present is a good time to put in *Ageratum*, *Tropæolum*, *Petunias*, *Salvia*, and other similar

#### HALF-HARDY PLANTS

in cold frames, shading them from strong sunshine. *Verbenas* require a little special treatment. It is impossible to succeed with *Verbenas* when the wood is hard or when it is only flowering wood that can be obtained, therefore it is advisable to wait a little until the growth becomes succulent, which it generally does in the middle of October. Then put the cuttings in thickly in small pots and place them near the glass in bottom heat. It is almost impossible to keep old plants over the winter. *Alternantheras*, *Coleus*, and *Iresines* require heat for quick propagation. Now is an excellent time to put in cuttings of all the *Violas*, which in some localities may be put in at the foot of walls or in sheltered positions, but the best place of course is in cold frames, where they can be protected when necessary.

*St. Fagans.*

HUGH A. PETTIGREW.

### TO TOWN IN JAMAICA.

TOWN is Kingston. It is seventeen miles away. I have tea (breakfast) by lamplight, and am ready to start just as the east is reddening and the nightly chorus of insects is giving place to the twittering of wakening birds. It is about five o'clock, and I saunter off in the leisurely fashion of this land where business has not degenerated into slavery. It is between the night and day breezes, and there is only a light draught down the river, which I follow for a mile. The next three miles are steadily uphill to Guava Ridge (2,666 feet). At Mavis Bank, half-way up, are two Flamboyant trees (*Poinciana regia*) in perfection of beauty, a foretaste of what is coming. For to-day is the 7th of July, and this glory of the tropics is now at its best. It is a wonderful tree; the scarlet bunches of flowers exquisite in colour lie over it in broad masses, not evenly disposed, but here thicker and there thinner. This disposition gives additional value to the leaves delicately shaped, after the manner of an *Acacia*, and of a lovely pale green; and the tree, which is of forest size when full grown, is always shapely. It puts all its perfection together for this month of July, for truth compels me to say that it has ragged seasons when the leaves look battered and worn, and long unsightly brown seed-pods hung from the branches.

With eyes filled with the colour I walk on, hardly looking at the familiar path of pleasant low-toned yellow with its edging of Ferns. The *Hibiscus* hedges are fully out, but bright as they seem at ordinary times they look dull after the *Poinciana*. Passing through the scattered bamlet, where each house stands in its piece of cultivated ground, hidden away behind Mangoes, Jacks, and Oranges, under which grow Coffee and an occasional Chocolate, I turn to look back at the great range of the Blue Mountains, clear this morning from top to bottom. Then the path crosses the Falls River by a couple of bridges in quick succession, and following the narrow valley, which gets continually steeper, there is no more looking out till Guava Ridge is reached.

From here there is a splendid distant view over broken hills and plains heavy with the morning mist, and beyond these hills again range beyond range. The next four miles are steeply down. In the course of them we have to descend 1,600 feet or more. We are soon swallowed up in the valley following the new little river downward just as we follow the Falls River upward. There is the same Fern-edged path, the same tangle of bush with Mangoes conspicuous among the wild things, and clearings here and there for provision grounds. This is the greenest time of year, trees in full leafage and Yams twining up their sticks and looking their freshest.

I am well on my way, and the sun has not reached me yet. I see it on the hill tops, but I walk on bare-headed. As the path gets nearer down to the river there is more cultivation. A few Bread-fruits begin to appear and Bananas. Every now and then a Monkey's Ear-ring (*Pithe-*

*colobium filicifolium*) throws a deeper shade than usual over the path. They are in great beauty now, bearing masses of the curled red seed-pods which give the tree its name, and there are fresh pale shoots among the old growths of sombre green with about the same relation of colour as in Yew, though the foliage is much less dense.

At the tenth milestone from Kingston the river plunges into an inaccessible gorge. A cutting through the rock carries the path round the hill to meet another valley, and after a mile, which is comparatively level, it zig-zags steeply down to Gordon Town. This is one of the most charming pieces of the road. There are Cocoanuts and Star Apples (*Chrysophyllum*) which diffuse a wonderful light of old-gold from the lower side of their leaves.

At and near Gordon Town several streams meet, forming the Hope River. A driving road begins here, but the valley is still narrow and picturesque with steep cliffs, which just give foothold to an occasional Aloe. Three miles further down we reach the Liguanea Plain, which slopes gently down to Kingston and the sea. The walk of eleven miles is done, and I put on my jacket and get into the electric car, which will take me down the remaining six miles.

Everything is green. I think this is the first thing that would strike a stranger. With our hot sun one expects to see the plate burnt up. It is so in spring and again in the late summer.

And now begins the glory of the *Poincianas*. There are not many, but each one tells from a long way off. One has eyes for them alone. What we observed at Mavis Bank is even more noticeable here. The *Hibiscuses*, which are plentiful, pale their ineffectual fires. They are swept out of sight as stars before the sun. It is wonderful and without seeing incredible. The only other things I look at to-day are the No. 11 Mangoes, hung with ripe and ripening fruit, in shape a Kidney Potato, in colour a Greengage Plum, and quite as good though in a different way. They are selling twelve for a quatty (1½d.), and each has as much upon it as a moderate-sized Apple.

The *Poincianas* and Mangoes are with us all the way to town, which is reached at 9.30. Two hours suffice for business and breakfast, and I turn homeward. People who live in Kingston complain of the heat. A visitor for the day does not feel it because the sea breeze is then blowing. The hottest I felt was between one and two o'clock in the gorge near Gordon Town, where the sun poured down and the breeze slackened. The pull up to Guava Ridge is severe on this side. Yet I have often been hotter over a piece of walking in Switzerland. I got back at five o'clock in time to water the garden. W. J.

## SOCIETIES.

#### KIDDERMINSTER AND DISTRICT HORTICULTURAL SOCIETY.

##### OUTDOOR CHRYSANTHEMUMS.

MR. E. C. NEWMARCH, F.R.H.S., took the chair at the monthly meeting of this society, held on Wednesday, September 10, when Mr. D. B. Crane, of Highgate, delivered a most interesting and enjoyable lecture on "Outdoor Chrysanthemums." After giving a sketch of the history of the flower, the lecturer dealt in turn with the questions of propagation, cultivation, and other points in a most lucid manner. Mr. Crane's instructive paper was much appreciated, and he was accorded a hearty vote of thanks. Mr. William Sydenham, of Tanworth, was also warmly thanked for sending a beautiful collection of blooms to illustrate the lecture, such kinds as Horace Martin, Goacher's Crimson, Ralph Curtis, Irene Hunt, Norbet Purvitz, and Mons. Louis Lionnet being particularly admired. The next lecture will take place on October 8, when Mr. F. G. Treseder, of Cardiff, will lecture on Dahlias.

#### CHARLBURY AND DISTRICT HORTICULTURAL SOCIETY.

ALTHOUGH the exhibition held at Charlbury, Oxfordshire, on the 28th ult. was the second of its kind, there appears to be sufficient enthusiasm in this society to make the future ones a still greater success. Mr. H. W. G. Morris, the indefatigable secretary, is largely responsible for the success which has so far been achieved. Exhibits have greatly increased, two large tents failing to house all the produce entered for competition. The show was held in the picturesque grounds, Lee Place, through the kindness of Captain Waller,

and although the weather was threatening at times it kept fairly fine.

Fruit was very well shown, the three competitors in a class for six distinct kinds making an interesting display. First prize was won by Mr. Vernon Watney, Cornbury Park, Charlbury, with superb Nectarines, Apricots, Peaches, Grapes, Figs, and a splendid Melon; Viscount Dillon was second, his Melon being in the pink of condition, and his Apricots superb. For two bunches of Grapes, Mr. Cook, Ascott, staged two beautifully even bunches with large berries and remarkably handsome colour; second prize was won by Viscount Dillon. A handsome Melon secured first prize for Viscount Dillon, the second award falling to the lot of Mr. F. T. Maisey, Charlbury. Most of the dessert fruits were staged for flavour, those for culinary purposes being adjudicated upon by weight.

Vegetables were finely shown, and also completely filled one of the large tents. Separate classes respectively for Cucumbers, Celery, Carrots (both stump-rooted and intermediate), Onions, Potatoes, Tomatoes, Turnips, Scarlet Runners, and Peas were well contested. The chief prize winners were Viscount Dillon, Captain Waller, Messrs. F. T. Maisey, F. Arnold, F. Bowley, Cook and Edgington.

Plants were rather poorly represented. For a specimen flowering plant Mr. Vernon Watney was first with a trellis-trained Allamanda, and for a foliage plant Captain Waller secured premier honours with *Adiantum cuneatum*. A pretty class was that for two vases of Roses arranged for decorative effect. In this instance Messrs. Taylor and Sons, Kingham, were first with a beautiful pair, lovely blossoms in a pleasing variety of colour and form, tastefully set up, well meriting first prize; charming also were the two vases exhibited by Mrs. H. W. G. Morris, Charlbury.

The dinner table decorations were a centre of interest. A simple yet elegant arrangement of the Harebell and just a few plumes of some of the smaller grasses made a most dainty display. This was the winning set, and came from Messrs. Taylor and Sons; Mrs. Morris was placed second with an arrangement of Sweet Peas, the colours being pleasingly associated; third prize was awarded to another display of Harebells and grasses, in which the grasses were too freely used.

Twenty-four grand Cactus Dahlias secured leading honours for Messrs. Taylor and Son; Mr. Corbett, Taston, being placed second. Messrs. Taylor and Son were again to the fore with Pompon Dahlias, showing a pretty lot of blooms; second prize in this class was won by Mr. J. Simmonds, Charlbury. The Sweet Peas in the competition promoted by Mr. Robert Sydenham, of Birmingham, created a delightful picture so late in the season. The blooms were large, of good form and colour, and the positions were keenly contested. Mrs. Morris, however, was a good first, followed in order by Mr. F. Bowley and Mr. G. King. There were other Sweet Pea competitions of equal merit.

An amateur's section, and one also devoted to cottagers, embracing flowers, fruits, and vegetables, made the show a most comprehensive one. There were in all some 134 classes, and in most instances the competition was good. To accomplish so much speaks well for the enthusiasm and hard work of the secretary and executive, and there is no reason whatever why this society should not make its influence felt throughout the county.

#### DAHLIA EXHIBITION AT THE ALEXANDRA PALACE.

THE central hall of the Alexandra Palace presented a very pretty appearance on the occasion of the annual exhibition of the North Middlesex Dahlia and Horticultural Society. The show was a very good one, and reflected great credit on the society, which is only two years old.

Among the large trade exhibits, the finest was that of Messrs. J. Cheal and Sons, who obtained the gold medal. Silver-gilt medals went to Messrs. Cutbush and Son, and to Mr. J. T. West, who also sent collections of cut blooms. Mr. A. Such was given a silver medal for early-blossoming *Chrysanthemums*.

A fine display of hardy flowering plants, such as Phlox and Sunflowers, furnished by Mr. A. Perry, Winchmore Hill, gained a silver medal. Two noteworthy contributions were by the Alexandra Palace trustees, one being a beautiful group of Palms, Ferns, and foliage plants, and the other a collection of flowers and vegetables grown in the Palace grounds.

#### THE CRYSTAL PALACE FRUIT SHOW.

NO one expected as good an exhibition of fruit as usual, therefore no one was altogether disappointed by the display in the Crystal Palace on September 18, 19, and 20, when the Royal Horticultural Society held its annual show of British-grown fruit. Competition in many classes was not keen, and in some there were no exhibitors at all. The large displays of hardy fruit usually made by the leading fruit growers were missing, and this fact alone largely accounted for the dull and unattractive appearance of the show, another reason of this being the want of colour in the Apples and Pears. Considering the early date of this year's exhibition, soft fruits, such as Peaches, Nectarines, and Plums, were not so good as might have been expected. Grapes were the best feature of the show; in fact, Grapes at all the leading shows in various parts of the country have been exceptionally good this year, so apparently this generally unsatisfactory season has been suitable to their culture. The Rev. W. Wilks, Mr. Reader, Mr. S. T. Wright, Mr. Humphreys, and their assistants deserve the best thanks of both exhibitors and visitors for the excellent arrangements made for them.

#### DIVISION I.—FRUITS GROWN UNDER GLASS OR OTHERWISE, GARDENERS AND AMATEURS ONLY.

Collection of nine dishes of ripe dessert fruit: First, Mr. J. H. Goodacre, Elvaston Castle Gardens, Derby, with an exhibit of great excellence. The Muscat of Alexandria and Gros Maroc Grapes, Peaches Exquisite and Sea Eagle, Pear Marguerite Marrillat, Apple Washington, and Melon The



Countess were splendid; second, Mr. J. Lock, gardener to Sir C. Swinfen Eady, K.C., Otlands Lodge, Weybridge. His Muscat of Alexandria Grapes were very good, and so were Dryden and Rivers' Orange Nectarines and Barrington Peach; third, Mr. J. Barson, Hinchinbrooke Gardens, Huntingdon. Peaches Sea Eagle and Barrington were good, and a huge Melon named Countess, whose nomenclature we much doubt.

Collection of six dishes, ripe dessert fruit: First, Mr. W. Mitchell, Chilworth Manor Gardens, Romsey, Hants, with a very good exhibit. The Grapes were good, also Peach Princess of Wales and Nectarine Pitmaston Orange; second, Mr. W. Harrison, Hallingbury Place Gardens, Bishop's Stortford, with a fairly good display; third, Mr. W. Howe, Park Hill Gardens, Streatham Common.

Six bunches of Grapes, distinct: First, Mr. W. Shingler, Melton Constable, Norfolk, with splendid Alicante, Gros Colman, large Muscats fairly well finished, and the same may be said of the bunches of Mrs. Pince. Gros Maroc and Alnwick Seedling were the other varieties shown; second, Mr. J. H. Goodacre, with huge, well-coloured Barbarossa, good Gros Maroc, and Muscat Hamburgh. There was no competition for four varieties of Grapes.

Three bunches of Black Hamburgh: First, Mr. W. Mitchell, Chilworth Manor Gardens, Romsey, with splendidly finished bunches; second, Mr. J. H. Goodacre; third, Mr. G. Lane, Highfield Gardens, Englefield Green, Surrey.

Mrs. Pince, three bunches: First, Mr. W. Taylor, Tewkesbury Lodge Gardens, Forest Hill, with fair bunches. There were no more competitors.

Alicante, three bunches: First, Mr. H. H. Brown, Castle Hill Gardens, Englefield Green, with very good, well-finished examples; second, Mr. W. Shingler, with enormous bunches, carrying a better bloom than the former, but unshapely; third, Mr. W. Taylor, Tewkesbury Lodge Gardens.

Madresfield Court, three bunches: First, Mr. W. Mitchell, Chilworth Manor Gardens, with fairly good fruit; second, Mr. J. H. Goodacre; third, Mr. W. Taylor. None of the Grapes in this class were first-rate.

Any other black Grape: First, Mr. W. Shingler, with splendid Gros Colman; second, Mr. George Lane, with very good Appley Towers; third, Mr. W. Mitchell, who showed Gros Maroc.

Muscat of Alexandria, three bunches: First, Mr. W. Lane, gardener to Sir E. Durning Lawrence, Bart., King's Ride, Asent, with beautiful bunches of perfect finish; second, Mr. J. Lock, Otlands Lodge Gardens, Weybridge, with less shapely and not so well finished bunches; third, Mr. C. Sutton, Chavening Park Gardens, Sevenoaks, with good bunches, though somewhat green. There were eight more entries.

Any other white Grape, three bunches: First, Mr. George Lane, Englefield Green, with excellent Chasselas Napoleon; second, Mr. W. Taylor, Tewkesbury Lodge Gardens; third, Mr. Goodacre, both with the same variety.

Collection of hardy fruit, grown in the open, thirty dishes, distinct: First, Mr. W. Lewis, East Sutton Park, Maidstone, with fruits of good size, though they altogether lacked colour; Apple Peasgood's Nonsuch and Pear Clappa's Favourite were the best dishes; second, Mr. E. Coleman, North Frith Gardens, Tonbridge, with some good fruits, though none had any colour; third, Mr. Berryman, Knighton Grange Gardens, Chichester.

Collection of hardy fruit grown under glass, twelve dishes, distinct: First, Mr. Goodacre, Elvaston Gardens, with some handsome fruits. Pears Souvenir du Congrès and Marguerite Marillat, Peaches Princess of Wales and Sea Eagle, and Apple Ribston Pippin were splendid. Mr. R. Edwards, Beechy Lees Gardens, Sevenoaks, was second with smaller fruits. There were no more entries.

#### DIVISION II.—NURSERYMEN.

Table of fruit grown entirely out of doors, 48 feet by 6 feet: First, Mr. H. Berwick, Sidmouth Nurseries, Devon. Mr. Berwick had a very good display of Apples and Pears. Some of the best dishes, although they were not really up to the usual standard, were Apples Lord Derby, Warner's King, Autumn Pearmain, New Hawthornden, Gloria Mundi; Pears Souvenir du Congrès, Pitmaston Duchess, Beurré d'Amanlis, &c. Messrs. H. Cannell and Sons, Swanley, Kent, were second. Their exhibit was very well arranged, but the fruits lacked the size of those in the first prize exhibit. Some of the best dishes were Lord Derby, Bismarck, Warner's King, Lord Suffield, and Winter Hawthornden.

A similar exhibit to cover table 32 feet by 6 feet: First, Messrs. J. Cheal and Sons, Crawley, with a good display. Some of the Pears were very good, notably Pitmaston Duchess, Glou Morcean, Catillac, Beurré Nigan, Doyenné Boussoch, and others; Messrs. J. Peed and Son, West Norwood, were second. Some of the dishes were very good, and some again were very small.

Table of hardy fruit, 16 feet by 6 feet: First, Mr. G. Mount, Canterbury, with an exhibit that contained some good well coloured dishes; Apples Cox's Pomona, Peasgood's Nonsuch, Lord Suffield, Worcester Pearmain, Grenadier, and others were of the best; second, Messrs. S. Spooner and Sons, Hounslow, who also showed well, having good dishes of Apples particularly; Messrs. J. Laing and Sons, Forest Hill, were third.

#### DIVISION III.—MARKET GROWERS ONLY.

Cooking Apples, four varieties, about 42lb. in baskets or boxes: First, Mr. H. T. Mason, Rectory Farm, Hampton Hill, with splendid Lane's Prince Albert, The Queen, Lord Suffield, and Bismarck; second, Mr. W. Poupert, Marsh Farm, Twickenham, whose Peasgood's were excellent.

A similar exhibit of dessert Apples, about 20lb.: First, Mr. George Chambers, Mereworth, Maidstone; second, Mr. W. Poupert, Marsh Farm, Twickenham.

Dessert Apples, two varieties, in baskets or boxes: First, Mr. H. T. Mason, who had good fruits; second, Mr. A. Wyatt, Hatton, Middlesex. Similar exhibit of cooking Apples: First, Mr. G. Chambers, Mereworth.

Pears, two varieties, in two packages of about 20lb. each: First, Mr. A. Wyatt, who showed Souvenir du Congrès packed in shallow boxes; second, Mr. George Chambers.

Pears (dessert) suitably packed for market: First, Mr. W. Poupert, with good Pitmaston Duchess; second, Mr. A. Wyatt, with Souvenir du Congrès.

Collection of twelve varieties of Apples and six of Pears: First, Mr. W. Poupert, Twickenham, who had good fruits of Peasgood's Nonsuch, Warner's King, Lane's Prince Albert, and Lord Derby Apples; and Pitmaston Duchess and Marguerite Marillat Pears; a good second, Messrs. W. J. Lobjoit and Son, Heston Farm, Hounslow.

Cooking Plums, in basket or box, about 25lb.: First, Mr. W. Poupert, with splendid Monarch; second, Messrs. W. J. Lobjoit and Son, with Monarch also.

Dessert Plums suitably packed for market: First, Messrs. W. J. Lobjoit and Son, Heston Farm, Hounslow, with Coe's Golden Drop.

Peaches, twenty-four fruits, packed for market: First, Mr. J. Gore, Albion Nursery, Polegate; second, Mrs. W. J. Nay, The Homestead, Brentford (gardener, Mr. Buckingham).

#### DIVISION IV.—FRUITS GROWN IN THE OPEN AIR.

##### GARDENERS AND AMATEURS ONLY.

Apples, twelve dishes, distinct: Equal firsts, Mr. W. Jones, Wallington Bridge Gardens, Carshalton, and Mr. William Lewis, East Sutton Park Gardens, Maidstone. Both these exhibits contained some very good fruits, fairly well coloured and of good size.

Cooking Apples, six dishes: First, Mr. A. Bassile, Woburn Park Gardens, Weybridge, with excellent Ecklinville, Warner's King, and others. There were no more exhibits in this class.

Dessert Pears, eighteen dishes: First, Mr. W. H. Bacon, Note Park Gardens, Maidstone, who showed splendid Beurré Mortillet (one of the best dishes in the show), Directeur Hardy, Triomphe de Vienne, &c.

Dessert Pears, twelve dishes: First, Mr. A. Bassile, Woburn Park Gardens, with a good exhibit, Marguerite Marillat, Doyenné du Comice, Pitmaston Duchess, and Beurré de Mortillet were the best.

Dessert Pears, nine dishes: First, Mr. William Jones, Wallington Bridge, Carshalton, with good Mr. A. Treve, Pitmaston Duchess, Urbaniste, &c.

Dessert Pears, six dishes: First, Mr. R. Edwards, Beechy Lees Gardens, Sevenoaks, with very good Louise Bonne, Triomphe de Vienne, and Beurré d'Amanlis; second, Mr. W. Mancey, Upper Gattin Park Gardens, Mersham, with some very good Pears also.

Peaches, grown entirely out of doors, three dishes: First, Mr. C. Earl, Somerhill Gardens, Tonbridge, with good Sea Eagle, Princess of Wales, and others; second, Mr. J. H. Goodacre, whose best dish was Sea Eagle.

Peaches, grown out of doors, three dishes, distinct: First, Mr. C. Page, Dropmore Gardens, with good well-coloured fruits; second, Mr. Joseph Sparks, Grove House Gardens, Roehampton Lane.

Peaches, grown out of doors, one dish: First, Mr. W. Humphries, Home Lacy Gardens, Hereford, with very good Barrington; equal second, Mr. W. Mitchell, Chilworth Manor Gardens, Romsey, and Mr. J. Lock, Otlands Lodge Gardens, with Sea Eagle.

Nectarines, outdoor, three dishes, distinct: First, Mr. C. Earl, Somerhill Gardens, Tonbridge, with highly coloured fruits: second, Mr. T. Turton, Sherborne Castle Gardens, Dorset.

Nectarines, outdoor, one dish: First, Mr. J. Lock, Otlands Lodge Gardens, Weybridge, with very good Dryden; second, Mr. J. H. Goodacre, with Violette Hative.

Plums, nine dishes, three dessert, six cooking: First, Mr. G. Grigg, Ashburnham Place Gardens, with some excellent dishes, notably of Jefferson, Rivers' Late Gage, Black Diamond, &c.; second, Mr. W. Pope, Highclere Castle Gardens, Newbury, with good fruits also.

Plums, six dishes, two dessert, four cooking: First, Mr. C. H. Colegate, Catsfield Place Gardens, Battle, with good dishes; a good second, Mr. T. Turton.

Plums, three dishes of Gages, distinct: Second, Mr. J. H. Goodacre.

Dessert Plums, one dish: First, Mr. T. Turton, Sherborne Castle Gardens, with excellent Jefferson; second, Mr. James Vert, gardener to Lord Braybrooke, Audley End.

Cooking Plums, one dish: First, Mr. Grigg, Ashburnham Place Gardens, with Magnum Bonum; second, Mr. T. Turton.

#### DIVISION V.—SPECIAL DISTRICT COUNTY PRIZES.

##### GARDENERS AND AMATEURS ONLY—OPEN TO KENT GROWERS.

Apples, six dishes, distinct: First, Mr. E. Coleman, North Frith Gardens, Tonbridge, with highly coloured Worcester Pearmain, good Warner's King, and Peasgood's Nonsuch; second, Mr. R. Edwards, Beechy Lees Gardens, Sevenoaks.

Dessert Pears, six dishes, distinct: First, Mr. E. Coleman, North Frith Gardens, who had good Durendean, Pitmaston Duchess, and Beurré d'Amanlis; second, Mr. Richard Edwards, Beechy Lees; Triomphe de Vienne was his best dish.

##### OPEN TO SURREY, SUSSEX, HANTS, DORSET, SOMERSET, DEVON, AND CORNWALL.

Apples, six dishes, distinct: First, Mr. C. H. Colegate, Catsfield Place, Battle, with good Lady Sudeley and Warner's King; second, Mr. T. Turton.

Dessert Pears, six dishes, distinct: First, Mr. Turton, Beurré de Mortillet, Alexandre Lucas, and Triomphe de Vienne being the best of a good lot; a good second, Mr. C. H. Colegate.

##### OPEN TO WILTS, GLOUCESTER, OXFORD, BUCKS, BERKS, BEDS, HERTS, AND MIDDLESEX.

Apples, six dishes distinct: First, Mr. W. Strugnell, Road Ashton Gardens, Trowbridge, Dutch Codlin and Annie Elizabeth being the best; second, Mr. C. Page, Dropmore Gardens.

Dessert Pears, six dishes, distinct: First, Mr. W. H. Bannister, Cote House Gardens, Westbury-on-Trym, Bristol, Doyenné Boussoch, Beurré Hardy, and Pitmaston Duchess being very good; second, Mr. C. Page, Dropmore.

##### OPEN TO ESSEX, SUFFOLK, NORFOLK, CAMBRIDGE, HUNTS, AND RUTLAND.

Dessert Pears, six varieties: First, Mr. W. Harrison, Hallingbury Place Gardens, Bishop's Stortford, with very good fruits.

##### OPEN TO LINCOLN, NORTHAMPTON, WARWICK, LEICESTER, NOTTS, DERBY, STAFFS, SHROPSHIRE, AND CHESHIRE.

Apples, six dishes, distinct: First, Mr. W. H. Divers, Belvoir Castle Gardens, Grantham, with very good Lane's Prince Albert, Warner's King, The Queen, &c.; second, Mr. Henry Knott, Stamford.

Dessert Pears, six dishes, distinct: First, Mr. W. H. Divers, Beurré d'Amanlis and Beurré Superfin being the best dishes; second, Mr. Henry Knott, Stamford.

##### OPEN TO WORCESTER, HEREFORD, MONMOUTH, GLAMORGAN, CARMARTHEN, AND PEMBROKE.

Apples, six dishes, distinct: First, Mr. J. Rick, Moraston House Gardens, Ross, with very good fruits, Bramley's Seedling and Warner's King being of the best; second, Mr. J. E. Jones, Kynaston Gardens, Ross.

Dessert Pears, six dishes, distinct: First, Mr. J. Rick, who showed very good Durendean, Doyenné Boussoch, Triomphe de Vienne, &c.; second, Mr. W. Humphreys (gardener to the Earl of Chesterfield), Home Lacy.

##### OPEN TO GROWERS IN THE OTHER COUNTIES OF WALES.

Apples, six dishes, distinct: First, Mr. H. Forder, Ruthin Castle Gardens, North Wales; second, Mr. Fox, Highmead Gardens, Llanybyther, South Wales.

Dessert Pears, six dishes, distinct: First, Mr. H. Forder; second, Mr. Fox.

##### OPEN TO THE SIX NORTHERN COUNTIES OF ENGLAND AND THE ISLE OF MAN.

Apples: First, Mr. George Picker, Hesselwood Gardens, Hull, with very good fruits; second, Mr. J. McIndoe, Hutton Hall Gardens, Guisborough.

Dessert Pears, six dishes, distinct: First, Mr. McIndoe, with good Beurré Benoist and Pitmaston Duchess; second, Mr. George Picker.

##### OPEN TO GROWERS IN SCOTLAND.

Apples, six dishes, distinct: First, Mr. James Day, Galloway House Gardens, Garieston, N.E. Mr. Day was first for Pears.

##### OPEN TO GROWERS IN IRELAND.

Mr. J. G. Weston, Bessborough Gardens, Kiltown, Ireland, was first for six dishes of Apples in the class open to Irish growers only, with excellent fruits.

#### DIVISION VI.—SINGLE DISHES OF FRUIT GROWN IN THE OPEN AIR.

The chief prize winners in these classes for Dessert Apples were Messrs. John McKenzie, T. Turton, F. W. Thomas, W. Harrison, G. Crabb, W. P. Bound, D. G. Melver, G. Earl, T. Clinch, T. W. Herbert, J. Luck, Alex. Smith, W. Mitchell, A. J. Carter, Charles Ross, E. Coleman, W. H. Bannister, and J. Rick.

##### COOKING APPLES.

The chief prize winners were Messrs. Alex. Smith, E. Coleman, W. Lewis, A. Bassile, J. E. Jones, J. McKenzie, T. W. Herbert, C. Earl, C. Sutton, F. W. Thomas, D. McAlnah, T. Turton, D. G. Melver, Charles Ross, A. J. Carter, W. H. Divers, and W. P. Bound.

##### DESSERT PEARS.

The chief prize winners were Messrs. A. Bassile, A. J. Carter, E. Coleman, W. H. Bannister, J. Rick, T. Turton, W. Lintott, G. Grigg, T. W. Herbert, J. W. Barks, T. H. Slade, W. Howe, D. McAlnah, F. W. Thomas, T. Horsey, Charles Ross, and C. Page.

##### DIVISION VII.—MISCELLANEOUS.

##### HOME-PRESERVED OR HOME-BOTTLED FRUITS.

The Horticultural College, Swanley, won the first prize in this class (wholesale firms excluded) with what appeared to be first-rate produce. Miss A. Bassett, Shirley, Croydon, won the second prize, the third prize going to the Lady Warwick Hostel, Reading.

##### HOME-PRESERVED OR HOME-BOTTLED BRITISH-GROWN FRUITS (OPEN).

First, Messrs. Austen and Co., St. James Works, Kingston-on-Thames, who showed a great variety of jams and bottled fruits; second, Britanica Fruit Preserving Co., Tiptree Heath, Kelvedon, Essex; third, the Horticultural College, Swanley.

Twelve bottles of bottled fruits: First, Allanson Bailey, Esq., Mount Pleasant, Farningham (gardener, Mr. W. Elliott); second, Mr. J. Bushnell, Sandling, Maidstone; third, Mrs. Banks, Hasland Hall, Chertseyfield.

Mrs. W. H. Plowman, Beddington Corner, Mitcham, was given first prize in a miscellaneous class for fruits and jellies.

##### NON-COMPETITIVE EXHIBITS.

Mr. George Bunyard, Maidstone, had a splendid exhibit of orchard fruit and pot tree trees. The latter, arranged at the back of the stand, comprised trees of Apples, Pears, Peaches, Figs, Cherries, and Grapes. The dishes of fruit arranged below contained amongst them some excellent fruits, notably of Apples Peasgood's, Duchess of Gloucester, Grenadier, Duchess of Oldenburg, Emperor Alexander, Lady Sudeley, and many more. Of Pears, Conseiller de la Cour, Uvedale St. Germain, Princess, Beurré Balthé Pêre, Marguerite Marillat, Parrot, and Pitmaston Duchess were splendid. Plums, Nectarines, Crabs, Prunes, including Burbank's Giant (new), Filberts, Peaches, &c., were also included in the exhibit, which was of one great excellence.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a group of Pear trees in pots that were carrying good crops of fruit. Beurré Fonquerry, Princess, Beurré Superfin, and Emile d'Hayat were of the best.

Messrs. B. R. Davis and Sons, Yeovil, Somerset, displayed some grand blooms of tuberous Begonias in splendid sorts.



# THE GARDEN

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[OCTOBER 4, 1902.]

## FASHIONS IN FLOWERS.

**E**VEN among those who truly love their gardens there are many people who are content just to follow the prevailing flower fashion of the day, and, without thinking for themselves, to accept what is perhaps only a fancy of the moment as a standard of excellence that they are bound to follow.

Just now there is a conspicuous example of this in the present fashion in the form of the Cactus Dahlias. In these capital flowers it appears that the only ones that are now in favour are those with the narrow half-tubular florets more or less twisted, forming a starry outline. One of the best growers assures us that nothing else in the way of garden Dahlias is now in demand, and that the older decorative sorts, with wide, flat petals are no longer asked for and cannot be sold.

This is extremely regrettable, as it is just these wide-petalled Dahlias that are of all their kind the ones most useful in good gardening for grand effects of colour in the late summer and autumn. It is not to be denied that the starry flowers have a prettiness and refinement of form that will befit them for the show table and for room decoration, but to let these be the only garden Dahlias that we may now have seems to us a sheer perversion of good taste and good sense. Beautiful though some of the most free blooming of them are, there is scarcely one among them that for honest and simple garden use can approach in value such of the older flatted-petalled kinds as, among the reds, King of the Cactus, Cochineal, Lady Ardilaun, and Fire King; among yellows, William Pearce, Lady Penzance, and Lady Primrose; or such fine things as Henry Patrick among whites. To let this grand type of a good flower fall into disuse is to neglect some of the very best flowers we can have in our gardens.

We cannot but think that this exclusive approval of the starry, twisted-petalled flowers among the garden Dahlias is but a passing fashion, and would earnestly counsel growers not to lose sight of the fine old kinds such as those just named. Some of the most thoughtful and practical amateurs would not on any account be without them, and, though admitting and admiring many of the starry kinds, would never allow these to claim precedence of their more useful brethren.

Probably the taste for the newer kinds is to a large extent an artificial one. It may be

that it is overfed by honours on the show table, and it would appear that it holds its present position more on account of the comparative novelty of form than as the result of a just appreciation of true beauty. The newer forms certainly cannot claim consideration for garden utility in comparison with the best of the older Dahlias.

Another class of this good flower that, according to the evidence of the nurseries and the shows, is falling into disuse is that of the large-flowered, low-growing kinds. A few years ago there were grand things among these, already excellent and showing infinite promise, and of distinct utility in garden decoration.

We ask ourselves what is the meaning of these freaks in Dahlia fancy. In the case of the old show flowers we know exactly where we are. They are for the competitions of the Dahlia societies and for the pleasure of those who honestly enjoy their rigid perfections. They have their place, though that place may not be in the most beautiful gardens. But why a grand development of a good flower should be thrust aside in favour of a form of lesser utility it is difficult to understand. Are there so few people who care about the truer aspects of garden beauty, or is it that growers are so anxious to raise prize-gaining varieties of the newer pattern that nothing else is put before the horticultural public at the shows?

We do not desire to decry the narrow-petalled Dahlias, but to remind amateurs of the extreme garden value of the good kinds that for a time at least are not receiving the consideration that is so justly their due.

## A HIGHLAND GARDEN.

SCOTLAND is famous for her hills and lochs, her grouse and purple moors, but none the less for her gardens and gardeners. There is nowhere throughout the Highlands a more charming old-world garden than this of which I write. Seen in midsummer it was a blaze of colour, fragrant with many scents, and bright with summer flowers, but now, in autumn, the garden has only added fresh beauties to its old delights. We complain sadly of the lateness of the season, but surely it is a matter of small complaint that we should still be in full possession of Raspberry and Currant bushes loaded with ripe red fruit. Wonderful to relate the Strawberries are only just over, a belated few still left among the leaves that have turned bright scarlet and brown. Roses seem to be the only flowers that August has taken away with her, though the Rose border is not quite bereft, and some still cling to the trellised doorway as though loth to leave us,

while the garden gateway is covered yet with masses of Crimson Rambler. One of the charms of these Scotch gardens is the custom of planting the fruits of the earth with the flowers and having no particular kitchen garden.

There are no ugly rows of the necessary Potatoes and Cabbages, unrelieved by anything more frivolous than a Lettuce bed. Tall Sweet Pea hedges and gorgeous Hollyhocks grow in friendly proximity to homely vegetables, and mingle their scent with Sage and Thyme from the herb border.

Carnations are only just out in this late season, and burst their tight green envelopes, glowing scarlet and pearly white. Carnations are trying flowers to gather, because of the forest of buds on every stalk; sometimes I am forced to leave a beautiful bloom on account of about seven baby flowers that grow on the short stalk. The borders in this garden seem an ever-changing band of colour. Tall Sweet Williams, dear old-fashioned flowers that they are, grow stiffly in large clumps, red and white, and Wallflowers, forgetful of the season, are actually coming into flower, seeming to bring a reminder of spring into my autumn garden. The borders are full to overflowing with blazing Calceolarias, modest Pansies (we call them kittens' faces), yellow Daisies, and a wilderness of Poppies. At one end of it I know where to find a York and Lancaster Rose bush, sacred to these old gardens, and in a secluded nook are clusters of Violet roots, a faint fragrance still seeming to cling round the leaves, a relic of departed spring. Near all the summer flowers blow quantities of autumn ones—Asters, many-coloured Stocks, and velvety-striped Marigolds. The gardener prides himself upon many new kinds of flowers, but we turn impatiently from the unfamiliar names to gather handfuls of sweet Mignonette, of which we never tire.

Under the sunny west wall stand a row of bee hives, whose crowds of busy workers pass in and out laden with honey from moor and garden. On the ground by the hives the massacred drones lie in heaps of slain, while in the security of the hive the queen lays her eggs. This Ross-shire garden in its exquisite trimness recalls Milton's remark: "Retired leisure, that in trim gardens takes his pleasure." The sunshine casts quaint shadows on the straight Box-edged paths, the gardener's pride, a soft wind rustles the Elms, while in the distance (seen through a tiny door in the wall) stretch a glorious range of blue hills standing clear against the sky. Perhaps the crowning glories of this Highland retreat are the tall hedge of clipped Holly, many years old, and the double avenue of ancient Cypresses, ending in a quaint semi-circle of Laurels. The picturesque stiffness of the grey-green Cypresses harmonises well with the atmosphere of bygone times in the rest of the garden, its broad Box hedges and bowling-green shut off by encircling copper Beeches and gigantic Planes.—D. H. D.



## KEW NOTES.

## INTERESTING PLANTS IN FLOWER OR FRUIT.

*Temperate House.*

ACACIA LINEARIS, Berlandiera tomentosa, Crowea saligna, Grevillea alpina, and Musa Ensete.

*Water Lily House.*

Gourds in fruit as follows: Benincasa cerifera, Lagenaria enormis, L. leucantha var. longis, L. vulgaris, Luffa acutangula, Momordica Charantia, M. cochinchinensis, and Trichosanthes Anguina.

*Orchid Houses.*

Erides odoratum, Brassavola grandiflora, Cattleya bicolor, C. Loddigesii var. Harrisonae, Cynorchis Lowii, C. purpurascens, Cypripedium Charlesworthii, C. crossianum, C. Maynardii, C. spicerianum, C. tonsum, Dendrobium formosum var. giganteum, Epidendrum ciliare, E. raniferum, Lelia pumila var. praestans, Lælio-Cattleya callistoglossa, Liparis elata, Miltonia candida, M. Clowesii, M. Regnelli, M. spectabilis var. moreliana, Odontoglossum andersonianum, O. grande, O. madrense, Polystachya Buchananii, Rodriguezia fragrans, Saccolabium gemmatum, Selenipedium grande, Sobralia xantholeuca, Stanhopea oculata, and Stelis discolor.

*Range.*

Hæmanthus coccineus, H. crassipes, H. Lindeni, H. tigrinus, Klugia notoniana, Mesembryanthemum tigrinum, Nerine curvifolia, N. sarniensis, Oxalis purpurata, Passiflora Galbana, Pavetta hispidula, Pitcairnia aphelandraeflora, P. maidifolia, Phyllanthus pulcher, and Tillandsia duvaliana.

*Succulent House.*

Aloe latifolia, A. obscura, A. pachyphylla, Asparagus ethiopicus, Bomarea edulis, B. oligantha, Opuntia Dillenii, and Solandra grandiflora.

*Greenhouse.*

Among other things the following are conspicuous: Angelonia salicariaefolia, Coxcombs, Erica caffra, Hibbertia dentata, Peristrophe speciosa, and Primula Forbesii.

*Herbaceous Plants.*

Asters in variety, Bidens grandiflora, B. leucantha, Callistephus hortensis, Campanula portenschlagiana, Colchicums in variety, Crocus asturicus, C. nudiflorus, C. pulchellus, C. speciosus, C. zonatus, Kniphofias, Lilies, Sunflowers, &c.

*Orchid House Wall and Border.*

Abutilon megapotamicum, Amaryllis Belladonna, Capparis spinosa, Gerbera Jamesoni, Gladiolus purpureo-aratus, Raphiolepis indica, Schizostylis coccinea, and Watsonia marginata.

*Shrubs.*

Aralia spinosa, Arbutus Unedo, Clematis (various), Fuchsia macrostemma and varieties, Hibiscus syriacus, Hydrangea paniculata, Hypericum (various), Ligustrum lucidum, L. Quihoui, Spiræa mongolica, and Ulex nanus.

## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

October 7.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster; National Chrysanthemum Society's Show, Royal Aquarium (three days); National Chrysanthemum Society, meeting of Floral Committee; meeting of Scottish Horticultural Association; National Dahlia Society, committee meeting, Horticultural Club, 3.

October 16.—Annual Dinner of the United Horticultural Benefit and Provident Society, Holborn Restaurant.

October 20.—Meetings of National Chrysanthemum Society's Floral and Executive Committees.

October 21.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster.

October 28.—Croydon Chrysanthemum Show (two days).

October 29.—Kent County Chrysanthemum Show at Lewisham (two days); Highgate Chrysanthemum Show (three days).

**Royal Horticultural Society.**—The next fruit and flower show of the above society will be held on Tuesday next in the Drill Hall, Buckingham Gate, Westminster, 1—5 p.m. A lecture on "Experiments with Chemical and other Manures" will be given by Mr. F. W. E. Shrivell at three o'clock. At a general meeting, held on Tuesday the 23rd ult., thirty-six new Fellows were elected, making a total of 934 elected since the beginning of the present year.

**Royal Horticultural Society's Examination in Horticulture, 1903.**

The Royal Horticultural Society will hold its annual examination in the principles and practice of horticulture on Wednesday, April 23, 1903. The examination will be held simultaneously in as many different centres in Great Britain and Ireland as circumstances may demand. A centre can be established wherever a magistrate, clergyman, schoolmaster, or other responsible person accustomed to examinations will consent to act on the society's behalf in accordance with the rules laid down for its conduct. No limit as to age, position, or previous training of the candidates will be imposed. The new syllabus is now ready, and intending candidates should send a penny stamp for a copy of it. Copies of the examination questions set by the society's examiners in previous years, price 1s., complete, can also be obtained on application to the Secretary, Royal Horticultural Society, 117, Victoria Street, London, S.W.

**United Horticultural Benefit Society—annual dinner postponed.**

The annual dinner of this society, announced to be held on Tuesday next, has been unavoidably postponed. It will now be held at the Holborn Restaurant (Throne Room), High Holborn, on Thursday, the 16th inst., at 6.30 p.m. Arthur W. Sutton, Esq., F.L.S., V.M.H., will preside.

**A Dahlia conference.**—Arrangements are being made for the holding of a conference, under the auspices of the Dahlia Society, on the judging of Cactus Dahlias in September, 1903, on the afternoon of the first day of the annual exhibition. The conference will be opened by a paper from Mr. C. G. Wyatt. The exhibition will be held at the Drill Hall, Buckingham Gate, the arrangements being similar to those for the exhibition held recently, and the conference will take the place of the fortnightly lecture of the Royal Horticultural Society. Several new decorative classes will be added to the schedule for next year.

**The proposed conference on Cactus Dahlias.**—In agreeing to hold its annual exhibition again next year at the James Street Drill Hall, the executive of the National Dahlia Society have also wisely resolved to hold in place of the usual lecture a conference on Dahlia judging, thus bringing the address and discussion into close harmony with the nature of the exhibition. That course will doubtless tend to attract to the show many who take more than a passing interest in the Dahlia. Should the council of the Royal Horticultural Society determine to hold a vegetable exhibition in the same place next year a very fitting subject for a lecture might be "The Proper Cooking of Vegetables." With respect to the Dahlia judging conference, which Mr. Wyatt, of Salisbury, has agreed to open on the lines of a paper read some time since before the Royal Horticultural Society in relation to points in judging Cactus Dahlias, very much interest should attach to it, for the obvious reason that with the exception of Mr. Wyatt no one seems to have attempted to lay down any principles on which such judging should be based. Really in Cactus Dahlias we have to deal with some of the most difficult of florists' flowers. Hardly any other kind or variety is there that does not lend itself to what are recognised as floral requirements, especially in relation to solidity, substance of petal, and outline. Cactus Dahlias differ greatly in form and size, and have petals of the most peculiar form, and also in build or substance. Colouring has little to do with point judging, as all good Cactus Dahlia flowers are beautiful. It is therefore no easy matter to lay down any clearly defined rules of judging in relation to these flowers. Then in the past they have been almost exclusively regarded from the

show standpoint—artificially supported and set up. That is a false or misleading aspect by which to judge of their merits. Of one variety that will make a good garden decorative plant, and that should be a primary rather than a third rate consideration, there are twenty that have no such fitness. It is now high time in relation to all certificated new ones that garden decorative fitness should be made a primary consideration. Raisers keep on pouring in seedlings during the autumn, and far too many of these obtain certificates of merit that have only large show flowers on weak stems, but are worthless in the garden. The result is that buyers of these new ones when they grow them are greatly disappointed. It would be no exaggeration to say that one half of the certificated seedlings of any one year are barely ever seen again. It is for this reason in any conference on the point judging of Cactus Dahlias that at least one-third of the points awarded should be for garden fitness. Then the more refined and beautiful the flowers so much the better.—A. D.

**Agapanthus umbellatus in tubs.**

I saw a few days since, standing on the grass fronting a villa residence at Teddington, four very fine blue Agapanthus in tubs and in splendid bloom. I have seen larger specimens, but none better than these. They were in tubs 20 inches over and about 15 inches deep. The leafage was about 3 feet in diameter, and as each plant seemed equally flowered I counted the stems on one and found sixteen, all carrying quite large heads of rich blue flowers. These were specimens that would have fitly adorned the grandest garden in the kingdom; yet how seldom are good ones seen. Immediately adjoining, in a similar garden, were several other fine plants in 12-inch pots in good bloom, but with these exceptions I see none others in thousands of similar or more pretentious gardens. These plants are not difficult to grow, and are half-hardy. While so beautiful and easy of culture, how many things not half so good or so readily grown are preferred.—A. D.

**Bush tree Apples.**—The remarkably fine examples of Lord Suffield, Bismarck, The Queen, and Lane's Prince Albert cooking Apples, shown at the Crystal Palace in bushels by Mr. H. T. Mason, of Hampton Hill, Middlesex, were grown on quite small bush trees only two years planted, with the exception of the Prince Albert, which came from older bushes. I saw these bush trees a few days since. Many then, especially Cox's Orange, were carrying fine crops of beautiful fruits nearly close to the ground. All the trees are worked on the Paradise stock at home, and they thrive remarkably well on the comparatively stiff loam of the district. The planting is unusually close, 6 feet by 7 feet, although for a few years there is ample room between them for such surface crops as Strawberries. When they are some seven or eight years old they are very thick. It seems to be the rule to plant out a breadth of newly-worked bush trees every year, and none seem allowed to remain unduly long on the ground. Pears on the Quince stock thrive as well as Apples do. The samples mentioned were of the very finest at the recent fruit show.—A. D.

**Hibiscus rosa-sinensis.**—Despite the dull, damp summer we have experienced, some plants of this tropical or semi-tropical shrub have flowered well in Battersea Park in the open ground, and kept up a succession of bright-coloured flowers for a considerable period. This Hibiscus, which is a native of China and Japan, was introduced into this country in 1731, and either the typical kinds or some of its many varieties are often to be met with in gardens. Among the different forms both single and double flowers occur, while they also vary considerably in colour. In one variety (Cooperi) the leaves are marked irregularly with bright and dark olive green, creamy white, and crimson, while they have also a reddish border. In tropical countries Hibiscus rosa-sinensis is largely planted for ornament. As recently as page 223 it is referred to in notes from a Jamaica garden, while here, if kept under glass throughout the summer, it needs to be fairly exposed to sun and air, otherwise the flowers will be but few.—H. P.



**Rudbeckia Newmanii at Waterlow Park.**—Excellent use has been made of this coneflower at Waterlow Park, Highgate, N. Planted in bold masses in various positions and equally varied aspects, convincing proof is given here that the plant thrives well in suburban London. Plants in this quarter of the northern heights are exposed to London fogs for quite a long period, and to come through the ordeal and succeed so well says much for the splendid constitution this *Rudbeckia* possesses. Just now these large groups are making a most effective display. The rich orange-yellow flowers with velvety maroon centre cone are developed in dense masses from late summer until autumn is well advanced.—D. B. C.

**Chrysanthemum early-flowering Pompon Mme. Ed. Lefort.**—This is very distinct. From the earliest days of September the plants are indeed a picture, and prove most conclusively what an excellent subject the early-flowering *Chrysanthemums* are for the hardy flower garden in the early autumn months. Although the plants rarely exceed 2 feet in height, they are of free growth. At the time of writing the plants are in full blossom. The whole of the flowers stood out well and make a free display of beautiful Pompon flowers with fimbriated florets. Their value is enhanced because it is quite unnecessary to disbud the plants to obtain the display referred to. The majority of the flowers, too, open at about the same period, and, in consequence, the effect is very striking. The colour, as described by the catalogues, is old gold shaded with red, but it is not by any means dull, as this description might possibly lead one to suppose.—D. B. C.

**Pergola climbers.**—The large pergola at North Myrms Park is so well clothed with diverse climbers that a list of some of them, as I saw a few days since, may be interesting to many readers. Still, climbers which do well on pergolas will do well anywhere, provided soil and aspect be favourable. They are as follows: *Polygonum baldschuanicum*, very vigorous and effective; *Solanum crispum* and *S. jasminoides*, both very beautiful, but should have the stems protected in winter; *Clematis Flammula*, paniculata, *Vitellia*, the yellow-flowered graveolens, montana, and *Nellie Moser* and *Marcel Moser*, both fine autumn bloomers, and very beautiful ones. Of *Honey-suckles*, *Lonicera halleana* is very good, and seems to be always in bloom. The vines are excellent. The old white *Jasmine officinale* is always good, as also is the winter-blooming *J. nudiflorum* and *Eccremocarpus scaber*. If the roots be protected in winter it is a fine flowering climber, as also is *Cobæa scandens* if similarly treated. Of course *Wistaria sinensis* is included, as also is the old Tea plant *Lycium europæum*, and the noble leaved Dutchman's pipe, *Aristolochia Siphon*. A good foliaged climber also is *Periplea græca*. Of course numerous Roses are included, such as *Crimson Rambler*, *Paul's Carmine Pillar*, *Alister Stella Gray*, *Bouquet d'Or*, and others. Generally for pergolas the stronger-growing and harder climbers are the better, because they are needed to cover up so much that is in supports unsightly. Strong growers may be kept in check with the knife. Weak ones may do for panels, but hardly to clothe the pillars. For panels, such a plant as *Ceanothus Indigo*, the most beautiful blue flowered of all, for a plant of which Mr. Fielder recently obtained a first-class certificate at the Drill Hall, do admirably.—A. D.

**Lælio-Cattleya elegans var. Fritz Sander.**—To add to the bewildering number of forms of this splendid natural hybrid flowers have just been received from R. H. Measures, Esq., of Streatham, of a new and very distinct variety, named as above in compliment to one of the partners in the firm of Messrs. Sander and Sons, from whom the plant was originally acquired while still in the imported state. Some doubt may be entertained as to whether or not this is really an *elegans*. It is possibly a cross between the two natural hybrids *L.-C. elegans* and *L.-C. schilleriana*. Anyhow the question may be allowed to rest at present. It is so near to *elegans* that it

is better classed as a variety of that than add to an already burdened nomenclature, at any rate until actual experiment conclusively proves its correct parentage. Meanwhile it is well worthy of placing on record for its handsome and distinct characters. A two-flowered spike has been received, the individual blooms of which measure 6 inches across the petals, which, with the sepals, are of a deep shade of magenta-rose, the petals being much the broader of the two, strongly undulated, and covered with parallel and netted veins of magenta. Their substance reminds one of *Cattleya Leopoldii*, but there is no spotting. The lip exhibits a strong contrast of colour. The whole of the front lobe is of rich crimson, flushed with magenta-purple, almost violet in certain lights. This colour extends in a broad stripe to the foot of the column and also to the apices of the side lobes, but is darkest immediately beneath the anther cap. The sides of the tube are white, with, at the base of the lateral lobes, a suffusion of light yellow. Except the yellow the colours are the same on the exterior surface and occupy the same areas, but if anything they are of a lighter shade. Around the whole of the coloured portion of the lip, the margin of which is beautifully frilled, runs a very narrow white border. The lateral openings so conspicuous in most varieties of *L.-C. elegans* are quite rudimentary, the median and side lobes having a practically uninterrupted outline. The column is purple-crimson.—ARGUTUS.

**Manettia bicolor.**—Early in July I saw a fine plant of this tropical American twiner, mentioned by Mrs. Gwytherne-Williams in her note on "Tender Shrubs and Trees" (page 193) as succeeding in the open in the Isle of Wight, in full bloom in a garden in the neighbourhood of Penzance. The example was 6 feet by 6 feet, and was covered with its brilliant scarlet and yellow tubular flowers. *Asparagus Sprengeri*, also referred to by the same writer, does well in the open in southern Cornwall, but not being a flowering shrub or climber was naturally omitted from the list of those subjects.—S. W. F.

**Erythrina umbrosa.**—How is it that this tree of surpassing brilliance, mentioned by Mr. A. Kingsmill in his charming "Impressions of a Cruise Amongst the West Indian Islands," is not alluded to in either Nicholson's or Johnson's horticultural dictionaries? Has it another specific synonym? It is, when in flower, as Mr. Kingsmill rightly says, a never-to-be-forgotten sight. After the lapse of twelve years the vivid impression still remains of a blossoming branch flung across a glade in the high woods of Trinidad, the glorious orange-scarlet flaming against the perfect blue of a West Indian sky.—S. W. FITZHERBERT.

**Senecio Galpini.**—One of the most interesting groups of flowering plants at the present time in the Cape house at Kew is composed of this rare South African composite. It was discovered in the Transvaal about eleven or twelve years ago, and seeds of it were sent to Kew by Mr. Galpin. Whether in or out of flower it is very ornamental, the leaves being handsome enough to warrant its culture for their sake alone. Before it arrives at the flowering stage it forms a dense rosette of fleshy and glaucous leaves 1 inch to 1½ inches wide and from 3 inches to 6 inches long. When strong enough a flower stem is pushed up from among the leaves to a height of from 9 inches to 15 inches, and on this heads of rich orange-coloured blossoms are borne, the heads often being from 1½ inches to 2 inches across. The plants at Kew are growing in pots, but it has also been tried with success planted out in the rock-work in the Mexican house. Outdoors a number of plants are to be seen in a bed in the herbaceous ground, but the unusually wet summer has not been very favourable for them. For planting out in a sunny position on a rock garden it would no doubt be an acquisition for the summer months, especially in those places where *Mesembryanthemums* thrive. *Kleinia Galpini* is another name under which this plant has been seen.—W. D.

**Gerbera Jamesoni.**—In a warm, sunny border at the foot of the Orchid house wall at Kew this *Gerbera* has been flowering freely for several weeks past and has still a number of flower

buds to open. Although it has not been cultivated in European gardens for many years it has attained a fair amount of notoriety on account of its brilliant coloured flowers. It is recorded in the *Botanical Magazine* as having been first discovered by the collector Rehman about 1878, and afterwards by Mr. Jameson in the goldfield district of Barberton, and by Mr. Wood of Durban Botanical Garden, and by Mr. W. Nelson on the Latrobe River. It is figured in the *Botanical Magazine*, t. 7087, and in *THE GARDEN* for October 12, 1889, the figures having been prepared from a specimen grown and flowered at Kew, which had sent by Mr. Wood from Natal the year previously. In the description accompanying the coloured plate in *THE GARDEN* it is stated that Mr. Tillet of Norwich first introduced and flowered the plant in 1887. It forms a large mass of leaves arranged in a rosette-like manner on a thick root-stock. The blades are 10 inches or more long, the petiole being 6 inches or 7 inches long. In shape the leaves resemble to a certain extent those of the Dandelion, but are deeply lobed and heavy. The flower-heads are 3 inches to 4 inches across, on long, upright, slender stalks 12 inches to 15 inches high, and the ray florets, which are flame-coloured, are the chief attraction. In general appearance the flower-heads are very like those of *Mutisia decurrens*. For a warm border where there is plenty of sun this plant is an excellent subject, while for a sunny, airy greenhouse it is a fine plant for pots.—W. DALLIMORE.

## NOTES ON HARDY PLANTS

### HEUCHERA.

ON page 194 of *THE GARDEN* mention is made of a hybrid *Heuchera* which I am said to have raised. However, like many other good hybrids have done, owing to my practice of allowing strange spontaneous seedlings to mature, it raised itself, having come casually and uninvited in a border.

Twenty years ago I recollect not more than three or four species of *Heuchera* in my garden; the best was *H. micrantha*, with large plumes of small white flowers showing red in bud, that colour being sometimes so pronounced as to have given rise to a synonym *erubescens*. Then there was *H. hispida*, syn. *H. Richardsoni*, a vigorous plant with tall panicles of colourless flowers and ornamental foliage marked with bronze. A third species was *H. cylindrica*, with larger green flowers growing more compactly and nearer the form of a spike. I think I also grew *H. americana*, which seems to have gone, being of little merit. The introduction of *H. sanguinea* from North Mexico about twenty years ago made quite a new era in the cultivation of the genus. I think Messrs. Ware had the credit of first offering it, and its pure soft red flowers and neat habit at once commended it to growers of hardy flowers, but it soon showed a serious failing, as in the northern counties of England, including Cheshire, it could scarcely be called hardy. It was much crippled and disfigured by a hard winter, especially if the winter extended into spring, and though it might survive the flowering which is due in May was much damaged if not destroyed.

*H. sanguinea* has become the parent of a very varied race of hybrids, all of them hardier than itself, and many well worth cultivating, but requiring selection. I got *H. sanguinea* as soon as it was in the market, and not more than three or four years afterwards I noticed a seedling coming up in a bed in which no *Heuchera* had been grown, so I presume the seed passed through the rubbish heap and was



introduced in a surface dressing of soil. When it flowered I had no difficulty in determining its parentage to be *H. sanguinea* × *H. cylindrica*, as its characters were distinctly intermediate: the flowers are large and pink, not without a suspicion of green, and the habit robust and very hardy. The flowering, which is abundant, begins in May and lasts to the end of August, when a large second crop appears and is generally destroyed by frost before the end of October when in its prime. It took some years to persuade visitors to my garden that this hybrid was of any merit; they preferred the colour of *H. sanguinea*, which they said was spoilt in the hybrid, and this is partly true; but its good qualities have been recognised by several of the leading herbaceous amateurs, and I cannot supply cuttings fast enough for the demand which has sprung up. If asked for a name I should propose to follow the good example of Professor Sir Michael Foster, and mark the parentage as he has done in several hybrid Irises, so the name, instead of Edge hybrid, under which I have hitherto distributed it, will be Sancy. I should add that this hybrid is fertile, and that I have raised two or three crops of seedlings from it. Some of these are of the deep scarlet of the best forms of *H. sanguinea*, others are dull white, but none are as robust or free-flowering as their hybrid parent. I have given away many of these promiscuously. The only form I thought worth notice was one with scarlet flowers as bright as the best form of the type, and rather larger, but I am not sure that I have kept it distinct.

Another hybrid which came in two or three parts of my garden soon after the first is *H. sanguinea* × *H. hispida*. It seems to have come also about the same time in other gardens, as it soon appeared in catalogues under the general name of *H. brizoides* or *brizæformis*. Some of these have the bronzed leaves of *H. hispida*; all are very robust in habit, being almost too leafy, and have many large and tall panicles of red-pink flowers, which last a long time, but are not produced in succession. This also is sparingly fertile, but does not seem to produce anything noteworthy. A third form of hybrid which seems more variable than the other two is *H. sanguinea* × *H. micrantha*. In this the flowers vary in size between those of the two parents, and are of different shades of red. Two or three years ago I saw in Essex a large bed of this hybrid in which there were hardly two plants with flowers alike. The forms seem to pass into *H. brizoides*, and as all these hybrids appear to be more or less fertile it is likely that the hybrids may have crossed. It need hardly be said that careful selection should be made before perpetuating any of the forms, which may very easily be done by cuttings. All the kinds are better for frequent renewals from cuttings, but the cultivation of the type in its best forms should have special attention. It is worth while to give it the warmest and most sheltered situations to save it from injury by frosts, as the embryo buds are easily destroyed in winter in the open border, hence we hear frequent complaints that the species flowers very sparingly. In cold gardens it is worth while to give the plants the treatment common with Tom Thumb scarlet Geraniums, taking cuttings early in summer, growing them in a frame through winter in single pots, and planting them out in April. If planted out from the store pots the check will interfere with their flowering.

Patient selection and artificial crossing would probably produce a strain as hardy as *H. hispida* with the bright vermilion flowers of the im-

proved type of the species. Neither the hybrid I have called Sancy nor any of the brizoid forms show any tenderness by exposure to winter or spring frosts.

Edge Hall, Malpas. C. WOLLEY-DOD.

#### VERONICA LONGIFOLIA SUB- SESSILIS.

I was surprised to read in Mr. Wolley-Dod's note about this handsome plant that it appeared to him "absolutely barren both in seed-bearing and in pollen." Ever since the plant was sent out, and, indeed, before, for I was in a way concerned with the original example at the Pine Apple Nursery, the mealy, almost biscuit-toned, pollen was quite conspicuous to the naked eye, and against the richness of the blue flowers was remarkably so. I am sending you a small scrap of bloom, such as I now have, to show that there is pollen in abundance, and in consequence my former remarks as to imparting some of its fine colour to the more weedy members of the race were amply justified. Moreover, if you closely examine the lowest portion of the inflorescence sent you will observe evidences of a swelling ovary—though doubtless infertile, for I have never gathered a seed that I remember—in every instance. This at least would indicate that careful fertilisation should bring the desired result. At the same time, it is curious that the plants at Edge are all barren, and have always been so. If, however, the barrenness is fully established it would be interesting to know the experience of others in more northern districts. So far as I am aware there is but one stock of this plant in circulation, unless the second introduction by Mr. Ware, as mentioned by Mr. Wolley-Dod be such, and this a barren stock. In the scrap sent the anthers are the same colour as the blossoms until the pollen cases burst and reveal the delicately toned pollen already described. In a few hours the pollen is quite ripe for use.

Hampton Hill.

E. JENKINS.

#### THE NIGHT-SCENTED STOCK.

Two plants apparently can lay claim to this title, namely, the annual *Hesperis tristis* and the perennial *Matthiola bicornis*. I noticed that Mr. Pettigrew, writing in the spring on "Fragrant Flowers," mentioned *Matthiola bicornis* as an annual. The plant that I have under this name is certainly not an annual, but is of dwarf, woody, shrub-like growth. I obtained it this spring from a friend, in whose garden it had been growing for three years. It has been flowering continuously ever since the beginning of June, and now holds a dozen or more flower-spikes. Its small blossoms, of a dingy purplish red tint, are certainly not attractive to the eye; indeed, they are so inconspicuous that nine out of ten persons would probably pass the plant by without noticing that it was in bloom, but in the evening the scent that they emit is delicious and is rivalled by few flowers. A native of Greece, it is of doubtful hardiness, but in the southern counties usually comes through the winter unharmed. All who love fragrant flowers and live in the warmer portions of these islands should grow *Matthiola bicornis*.

S. W. FITZGERBERT.

### THE FLOWER GARDEN.

#### SOWING GRASS SEEDS ON LAWNS.

WITHIN reach of most of our large towns the difficulty of securing good turf at a reasonable price has led to a larger use of seeds for lawn making, and if good seeds are sown thickly enough and the seed bed properly prepared a good lawn can be obtained in a comparatively short time. The best season to sow is in September, as early in the month as possible. When the seeds are

sown in September there is usually moisture enough to secure germination, and the sower would, after the ground was prepared, wait till rain was expected, but I prefer sowing on a fairly dry surface, so that the roller can be used. It is important for the ground to be thoroughly cleared of the roots of perennial weeds, and all stones raked off, and made perfectly level and firm by rolling. If necessary the ground should be manured before being dug over and levelled, but it is so easy to manure grass land with either phosphates or nitrates in a concentrated form that the question of manuring can be settled after the grass seeds are sown, but the ground must be perfectly level and perfectly fine to prevent a settlement afterwards. The seeds should be obtained from a good source, and sown quite thickly; in point of fact it is next to impossible to sow the seeds too thickly to secure a good lawn in a short time. Supposing the seeds are sown in September, and the roller is used occasionally, then a lawn will be fit to play upon by the following June, if not earlier. As soon as the seeds are sown rake them in and roll down firm again. It will be an advantage if a top-dressing of rich compost can be given which has been passed through a half-inch screen, though I have seen good lawns made without any top-dressing, especially in the case of small lawns near the house. Basic slag, 5lb. to the square rod, applied in autumn or early winter, and 3lb. to 4lb. per rod of nitrate of soda in spring, will soon alter the character of any lawn which is weak and worn and requires help. If the seeds cannot be sown in September, the sowing must be deferred till March or April, the ground cleaned and prepared during the winter, and if the work is well done in March the lawn will be ready for use in June, but firmness and smoothness are essential; on a firm surface the turf soon gets thick and the grass fine.

E. HOBDAV.

#### GOOD GARDEN TULIPS (SPECIES).

It is a good sign of an awakened interest in the Tulip when we see such firms as Messrs. Barr and Sons, Messrs. Hogg and Robertson, and Mr. W. B. Hartland, the latter both of Ireland, all paying marked attention to the flower. At the present time it is well to direct attention to some of the lesser known species of distinct beauty. Generally speaking, it may be said that few bulbous plants under cultivation improve so much as the species of Tulip, particularly when grown and kept under observation for several years in succession. Indeed, taking the comparatively small bulb as collected—frequently incapable of flowering the first year—and carefully noting both its weight as well as its dimensions, the grower will view with satisfaction at least the notable increase in these respects after only a moderately generous season or two of cultivation in good loam. Very naturally, too, what is so marked in these ways is equally so in vigour of leafage and its flowering. This is not merely satisfactory from the general standpoint, it is more, because it so unmistakably demonstrates how well adapted is Britain and British cultivation to the special needs of these beautiful spring flowers. The following can be recommended:—

*T. Batalinii*.—Not a large Tulip, but dainty, about 6 inches high as a rule, and with pleasing flowers of a soft delicate primrose tone, with a deeper shade in the centre. For its size it is quite free flowering.

*T. biflora*.—The typical species is not, perhaps, of much note, but the variety known as "major," with its clusters of yellow flowers, often early in March, is welcome. Frequently the clusters of flowers are as many as four on a stem, in which particular it differs from any other known species of Tulip.

*T. clusiana*, the Lady Tulip, has the outer segments of a cherry red tone, and the inner ones white, with violet centre. It is a pretty Tulip, rarely exceeding 9 inches or 10 inches high. An old inhabitant of our gardens and a native of the Mediterranean region. It is quite hardy, however, and should be planted 5 inches deep.



*T. Didieri*.—A handsome May-flowering Tulip, with large crimson-red flowers blotched with a darker colour at the base. This is a native of the Alps, and attains 15 inches high. There are other forms of this. Alba, white, and delicately scented; lutescens, pale yellow, sometimes freckled with red, a handsome flower; and aximensis, dark red, margined yellow. All are worthy of culture.

*T. Eichleri*.—Flowers brilliant scarlet and very handsome flower stems rather less than 1 foot high. Early April.

*T. Greigi*.—This has handsome spotted foliage and huge brilliant blossoms that when fully expanded are of great size, displaying the distinct blotch at the base. It is best in warm, sandy soils. Native of Turkestan. There is a golden form of this, lightly freckled with red.

*T. elegans*.—An April-flowering Tulip, graceful, pleasing, and brightly coloured. The former character is imparted to it by the pointed, slightly recurving petals. The form of this known as *Lutea*, which grows 18 inches high, is perhaps the finest deep yellow Tulip grown, producing its giant cups of pointed sweetly-scented flowers. There is a white form edged with carmine.

*T. flava*.—Creamy yellow, sturdy and vigorous, 20 inches high, valuable as a late flowering sort.

*T. gesneriana*.—There is hardly any need to refer to this kind of Tulip, which, as the first parent, so to speak, of a great race, is made much of in every garden in the land. Bold, brilliant, and noble, no Tulip is showier. There are many beautiful varieties.

*T. kaufmanniana*.—A rare species from Turkestan, and certainly one of the most handsome. The flowers are of large size, creamy white, with a few streaks of red on the outside, and a big blotch of yellow inside. A very hardy Tulip, and improves greatly with judicious culture in sweet loam and sand. Flowers early in April. Height, 10 inches.

*T. Lounei*.—A rare and pretty species, 4 inches to 6 inches high. Flowers, soft rose-pink with yellow centre, the outer petals greenish.

*T. Leichtlini*.—A very pretty species, particularly in the stage just before expansion. In this stage the three outer segments are of bright carmine-red, revealing a broad white margin, as the flower expands. The inner petals are white and somewhat rounded. Native of Cashmere.

*T. saxatilis*.—A rather pretty Tulip of a delicate rose tint, with bright yellow centre. Height, under 1 foot. Native of Crete.

*T. pulchella*.—A charming species from the Alpine region of the Taurus Mountains. Flowers glowing crimson-carmine with yellow markings.

*T. suaveolens*.—Large brilliant scarlet and yellow flowers. A dwarf Tulip, flowering in April. A gem for cutting.

*T. sylvestris*.—A well-known native, 16 inches or 18 inches high. Flowers of a pleasing yellow shade and sweet-scented. Fine for naturalising.

*T. violacea*.—Rosy carmine, shaded violet, perhaps the earliest of all species. Warm spot in the rock garden is best for this kind. Under 6 inches high.

*T. vitellina*.—A fragrant Tulip of much merit, the finely-shaped flowers pale yellow, shading to a creamy tone. Height about 16 inches to 20 inches.

To these others may be added of much merit. At the same time, those named form quite a representative list.

E. J.

## THE "ALDERBOROUGH" ANEMONES.

This is the name given by the Messrs. Reamsbottom and Co., Ireland, to their beautiful strain of Anemones. These have been so frequently seen during the early part of the present year and so unanimously praised that a brief notice at the present moment will suffice to again

direct attention to them at the season of planting. Never before has such a gorgeous picture of colour been seen at a London show as that in the Drill Hall in the early spring months. Not only for colour but also for size and fulness did these handsome flowers appeal to all who saw them. Any amateur can grow the Anemones just as well with a little care and some generous treatment of the soil. Perhaps the best soil is the lighter loam, that known as sandy loam, and this of good depth. Equally good is any soil rich in vegetable matter, and particularly the darker soils that retain some moisture at a short distance from the surface. The soils that do not, as a rule, agree with these plants are heavy and retentive, such as close clays.

But the amateur may now make his preparations for planting, firstly, by digging as deeply as the conditions permit; and, secondly, by the addition of plenty of decayed manure and leaf-soil. When planting the tubers should not be buried more than 4 inches deep, and may be surrounded by sand or not, according to the class of soil being dealt with. In the lightest of soils this will not be required, while in those of a more heavy and loamy nature sharp sand is always helpful.

Generally speaking, October and November are considered good for the planting of all this tribe, and in those gardens where it is known that winter frosts do no harm to the young leafage no time could be better. In those low lying localities where the leafage suffers in severe weather the latter part of November will be early enough for the planting of the first batch. From this time successional batches of the tubers or roots may be planted until March and even later. Though in these late plantings it may be seen that the tubers are of reduced size, they not only quickly plump up when planted and in contact with the soil, but yield a welcome late display. Naturally the finest flowers are the result of planting good tubers at the most seasonable time. Never plant the tubers too thickly. For those of medium size, a minimum distance of 6 inches and for the largest size roots 9 inches apart each way will not be too much for full development. Happily for those who make a feature of massed beds in early spring these showy flowers are among the cheap and good things of to-day. Indeed, the strain is of the

highest excellence throughout, the colours of exceptional brilliancy, and the flowers of a size and fulness we had not seen hitherto. These flowers when seen at the Royal Horticultural Society's meeting were admired by all.

## THE BEST MICHAELMAS DAISIES.

Few flowers have been so improved during the past thirty years as the Michaelmas Daisy. It was then a commonplace flower, planted in some out of the way corner or among shrubs and left to take care of itself; but grown in a border by itself there is no hardy flower that can in any way compare with it during the last fortnight in September and through October.

There are many varieties, many synonymous or almost so, so that great care is necessary in making a selection, which should be done and the various heights noted while they are in flower. The trial which is being made at Chiswick this season should prove of great assistance to all lovers of this charming plant, as a very large collection is being grown; hence one good reason why the Royal Horticultural Society should possess a good trial garden.

Fortunately the perennial Asters are not at all fastidious as to the nature of the soil, thriving in almost any kind, in any position, and no reasonable amount of frost or wet will injure them. Support against rough winds is, however, absolutely necessary. Especially must this precaution be taken when they are planted in exposed positions. Merely bunching up the growths to one stake is ugly and slovenly, as the beauty of many varieties is in their growth.

I have for many years made a special study of Michaelmas Daisies, and nothing has given me greater pleasure, as my labours have been much appreciated by my employers and the numerous visitors which annually come to see them when in flower. By careful hybridisation we have been fortunate in raising and bringing before the public many improved forms, habit of growth and free blooming having been my object. I have flowered many thousands of seedlings, which of necessity must be the case to obtain really distinct novelties.



PART OF THE ASTER (MICHAELMAS DAISY) BORDER IN THE GARDENS OF ALDENHAM HOUSE, ELSTREE, HERTS.  
(THE RESIDENCE OF LORD ALDENHAM).



Like many other things the more common varieties produce seed more freely than the better forms. For the benefit of those who contemplate forming a collection I will as briefly as possible relate our mode of treatment. We devote a long border facing east to the Asters. It is of good width and backed by shrubs, the soil was in the first instance thoroughly manured and trenched during autumn and left rough till the spring, then forked over and levelled. Having made a careful note of what I considered the best kinds in the autumn, these were procured and planted at a distance of 3 feet all ways, carefully arranging the heights. Cinder ashes were placed round each plant to prevent slugs eating them, and the surface well mulched with half-decayed manure.

Except watering in dry weather and giving frequent hoeings little other attention was needed till July, when the plants were staked. Several stakes are used to each clump, and the growths neatly looped up as required. We replant, trench, and manure the border every two years, dividing the clumps into small pieces, and each season additions as to varieties are made, the less effective kinds having to give place to better ones.

After flowering the old growths are left till spring, as these are by no means uninteresting. The seed of the better kinds should be gathered immediately it is ripe, and sown either in autumn or early spring, pricked out into boxes when ready, and planted in the open in April in a sunny position, when they will flower the same season. I append a list of varieties, all of which are of great merit, and should be included in all collections.

*Novi Belgii section.*—Beatrice, candida, densus, Ella, E. G. Lowe, F. W. Burbidge, Harpur Crewe, Maia, Margaret, Purity, Robert Parker, St. Brigid, Theodora, and Top Sawyer.

*Nove Anglie section.*—Mrs. J. F. Raynor, precox, rosea, rubra, and William Bowman.

*Amellus section.*—Onward, Distinction, Framfieldii, amelloides, hessarabicus, and Stella.

*Cordifolius section.*—Elegans, Diana, albulus, major, and magnificus.

*Other varieties.*—Hon. Edith Gibbs, Hon. Vicary Gibbs, Freedom, Delight, Arcturus, Acris, Autumn Glory, Annie, Brightness, Coombefishacre, Triumph, Councillor W. Waters, Captivation, Charming, diffusus horizontalis, ericoides, grandis, Grace Darling, Chapmanii, levigatus, Madonna, Minnie, Nancy, puniceus pulcherrimus, Pleiad, Ptarmicoides, Shortii, Tradescantii, Turbinellus, umbellatus, and vimineus perfectus.

EDWIN BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

AMID his multitudinous duties in this charming garden, Mr. Beckett has found time to raise and grow to perfection several batches of improved forms of Michaelmas Daisies. In no private garden can such a collection of varieties and well-grown masses of these favourite autumn-flowering perennials be found. For years it has been my pleasure to pay an annual visit to these gardens at a time when the Asters are coming into flower. With such a collection Mr. Beckett has the material for extensive cross-fertilisation, and not only has he paid attention to colour, but has striven to improve individual growth and freedom of flowering. Having selected the best varieties to operate upon, excellent results have been achieved, and before long the public will no doubt have an opportunity to share in the benefit of Mr. Beckett's labour.

With a view to obtain compact, dwarf, and yet graceful growth and a maximum of freedom in flowering, such varieties as Pleiad, the Hon. Edith Gibbs, Cordifolius, and Coombefishacre were chosen as seed-bearers. The former is well known as quite the best of very dwarf-growing varieties, reaching little more than 1 foot in height and bearing a profusion of lilac-blue flowers. The second-named is itself a seedling from the well-known and popular ericoides.

Last year twenty-four varieties were tested and given names. Of these no less than six owe their parentage to Pleiad, of which the following is a brief description:—

Esther is exceptionally free-flowering, growing into a compact, round bush 3 feet high. The blossoms are a pleasing lilac tint of colour.

Fascination does not grow more than from 2 feet to 3 feet high, compact in habit, with quite small leaves. The florets of the cup-shaped blooms are widely set apart, the colour lilac-blue.

Captivation flowers freely, the colour warm lilac-blue. It is quite pleasing; 3 feet.

Anne grows but 2 feet high, and forms a dense round head, freely covered with its lilac-blue shaded blossoms.

The Hon. Vicary Gibbs is of upright growth, 3 feet high, and has quite small leaves. The cup-shaped blossoms are from half an inch to three-quarters of an inch in diameter. The colour—bright lilac-pink—is pleasing.

Minnie is one of the most charming varieties yet raised, growing from 2 feet to 3 feet high, and most profuse in flowering. The colour is lilac, changing with age to a deep rosy shade of the same tint.

From ericoides several charming varieties have been raised, notably, the Hon. Edith Gibbs. Single stems grow 5 feet in height, and as much as 3 feet in diameter at the base. The horizontally-produced side growths are semi-drooping at the point, forming an elegant bush. The blossoms are three-quarters of an inch in diameter, and, like its parent, is most profuse in flowering. The colour is of the palest mauve.

From the Hon. E. Gibbs seven attractive varieties have been raised. Enchantress is quite an acquisition. The colour is lighter than its parent, while it retains other characteristics, such as habit, growth, and freedom in flowering.

Ideal and Osprey are also seedlings from the same source. The former is pale blue, while the latter is a warm lilac. Both are free and good.

From the Hon. V. Gibbs, itself a seedling from Pleiad, The Pearl and Gloriosa were obtained. Both much resemble Pleiad in colour. The growth is erect, the blossoms small, but half an inch in diameter.

Gloriosa is quite an acquisition to any section, the colour is so striking. When unfolding it is white, changing to lilac, and then to deep purple with age. The growth is erect and its flowers are freely produced.

From Cordifolius, C. magnificus was obtained, and, like its parent, is quite profuse in flowering. The colour is bright blue; 4 feet.

From Cordifolius Diana, Profusus was obtained, and, as its name implies, it is exceptionally free in flowering; in growth it is stronger. The colour—pale blue—is pleasing.

That sterling variety, Coombefishacre, has been largely used as a seed-bearer, and, as might be expected, with good results.

Triumph is perhaps the best of the batch, growing from 4 feet to 5 feet high, single stems growing so vigorously as to measure as much as 4 feet in diameter. The blossoms are large, pale lilac in the centre, deepening to rose at the edge. It is an exceptionally striking variety and especially free.

Grace Darling and Brightness are both from the same source, and acquisitions too. The former grows 3 feet high, forming a close, round head, thickly covered with blossom. The latter is fully 1½ feet taller than its parent. The blossoms are identical in form and size, but the colour is bright pink. Delight only requires to be seen to be admired.

E. MOLYNEUX.

## THE RETURN TO THE GARDEN.

IF we were in the Palace of Truth and compelled to speak exactly as we think, most of us, I fancy, would have to confess that the coming back to our gardens after anything like a growing time of absence is never an unmixed joy. Much more often are we conscious of a feeling of dismay—and why? What can it be that makes everything appear to have gone wrong? Why does the Fern bank look so rusty and the rockery so overgrown? Why have the best-loved plantlets hidden themselves away and the naughty ones become too pushful? Why, in spite of weeders and

gardeners and caretakers and waterers, are all the corners we like to see quite moist, as dry as bones, and those we would fain keep high and dry grown dank as ditch water? Why have the climbers that had started on their course so nicely gone off upon a wrong tack exactly in the direction we had not designed for them, and why did those glorious Gladioli or autumn Crocuses or Roses or whatever it happens to be that we particularly wished to see in bloom—almost timing the home-coming with that idea—take the opportunity of flowering just when we could not watch them, and now are showing us nothing but withered pods or reddening berries?

It is not the gardener's fault, poor man! He has been doing his best, and the garden looks all right to him; he has mown the lawns and swept them, and weeded the paths and tidied up the beds. What has gone amiss is this—his mind has been going into the garden, not ours, and we feel the difference. It is one of the curious things about gardens that, like dogs, they only belong and respond to one person in a family. Other members may be called into consultation, may advise, and may enjoy, but the garden—if it really is a garden—belongs but to one. The eye of that one absent and the face of everything is changed.

When one comes to consider the matter one finds there are many reasons to account for the disappointment that is felt upon returning to our gardens. In the first place, there is the inevitable march of the season and the short-lived character of many flowers; there is the well-known waywardness of plants, and there is, too, the alteration in the focus of our own pair of eyes. Whatever we are accustomed to appears by force of habit to be right—to seem right even if it should be wrong. Custom even beautifies the ugly. Old ugly furniture, old ugly clothes, old ugly pets, how blind we grow to their defects! Then comes some period of weaning, and we suddenly see them in the abstract. In a way, this is good for us, and very enlightening.

With regard to gardens it is always the people who care most for them, and especially the sensitive and imaginative who suffer most. Those who tend and watch things growing do not merely see them as they are, but also as they are going to be. Imagination leaps into to-morrow and all the other to-morrows, and to a great extent we can by daily, hourly fashioning and moulding control the future of our flowers so that they grow up as we would have them. "True love in every form, even towards animals and plants, is watchful and ever-seeing, never missing for a moment what is for their good." So wrote a flower-loving lady, who elsewhere confesses to her own not infrequent feelings of, shall we call it disappointment, for want of a better word?—it is a sort of shock—at the first sight of her own home garden after absence from it. Has it grown smaller, darker? What is wrong? Instead of puzzling over these questions, and above all, instead of grumbling, the wise among us will speedily set to work to re-establish the lost rapport. As soon as the gardeners are not looking—we do not wish to hurt anybody's feelings—the stems that have been tied too stiffly are unbound and shaken into freedom, the creeper that had wound itself about the flower bush is untwined and twisted in the way that it should go. A touch here, a bending there, a weed to pull up, a gentle changing. At first the garden scholars will be wayward. Like children after too long holidays they are out of hand. Leaves will sulk when turned and show their backs unbecomingly, but only for a time—a very



little time. A gleam of sunshine and a freshening shower will right them, and only smiling faces will greet the master's eye.

There is a pleasant fiction in some families—I could almost believe in it myself—that plants thrive through being looked *at* almost as much as through being looked *after*. Of course this is only another way of saying that the master's eye is ever the quickest and most watchful, anticipating needs and righting wrongs unconsciously.

One more factor that makes up for the vague feeling of disappointment we sometimes feel on returning to our gardens is the way we have of over-idealising them in absence. Over-fond and too-imaginative people are apt to suffer pangs even in the joy of meeting their dearest ones again after a period of separation. It is a mistake to put the absent upon pedestals. With friends, and lovers, and husbands and wives, and children, and flowers and gardens, the same idea holds good; we must not remember any of them better than they are.

Enough about disappointment. The return to our gardens is often also the occasion of the pleasant surprise. Some wayward wildling we have coaxed in vain for long we find with joy has established itself at last. Finally, in its own way, it is flourishing. And what a lovely border is here of *Heliotrope*! It was nothing when we left it; now, what a mass of bloom and fragrance, and how pretty the bronze-brown *Clover*, with the golden flowerets, that has leapt across the pathway to form a background. How the pink-dyed *Gloire de Dijon*s cluster among the purple blooms of the *Clematis*, and how the crimson *Phlox* flowers are burning as if lighted from within; or if it is a month later in the year how the gaily-coloured *Chrysanthemums* are heartening up the borders where still the *Dahlias* toss their dainty heads, the monthly *Roses* are turning a paler pink, and the *Mignonette* is just a little off—but, ah, how sweet! How much there is to see and do!

Household matters may be calling us, accounts that have to be made up, and sums that have to be put down, but it is next door to impossible to turn aside and leave the garden we are so glad to see again and within whose boundaries we fain would linger. Already the shyness is rubbed off that had come between us and the garden folk. Now we shall work together, again; sympathy is re-established. Well is it with the garden world that once more feels itself beloved, bewatched, betended, safely living and growing under the care of those who understand and love it best.

F. A. B.

## THE ROCK GARDEN.

### THE ROCK GARDEN IN SEPTEMBER.

**C**OLD winds and heavy rains are already making their presence felt, and remind us that the summer is practically a thing of the past. Nevertheless gardens, and especially rock gardens, judiciously arranged with a view to successive and continuous effect, are still bright in spite of the inclement weather. Many plants mentioned in my notes for August are still in bloom at the time of writing (middle of September), and of these I may mention the very interesting (*Eurotia rosea*, *Prunella grandiflora* and its white variety, *Polygonum vacinifolium*, *Androsace lanuginosa*, and *Senecio Grayi*). I will now mention plants which have since come into bloom and are still flowering, some of them for the second time.

#### CLIMBERS NOW IN BLOOM.

A glorious climbing plant is now blooming out of doors in West Cornwall, namely, *Solanum Wendlandi*. It is almost too robust in its growth to be mentioned as a plant for the rock garden, but there is no reason why it should not be used for covering a cliff or wall of either natural or artificial rock if the rocks are on a scale bold enough to accommodate so strong a grower. I was much struck with its appearance last week in a garden near Truro. The leaves are leathery, varying from 3 inches to 6 inches in length, and from 2 inches to 4 inches in width; it bears enormous clusters of blue flowers with a suspicion of mauve at the base, and each individual flower measures 2 inches to 2½ inches across. In Messrs. Veitch's nurseries at Exeter there are several fine plants in bloom, but there the plants were in pots and not out of doors. The plant is a native of Costa Rica, and therefore tender, but it is hardy in warm and sheltered places in the south-west. Other climbers now in bloom—which, of course, would be suitable only for very large rocks—are the various *Clematis*es of both the *C. Jackmani* and the *C. coccinea* type. The somewhat new hybrids, *Countess of Onslow*, *Duchess of Albany*, and *Princess Beatrice*, are also now in bloom.

#### DWARF ROCK PLANTS NOW IN FLOWER.

*Campanula Hendersoni* has opened its fine blossoms during the last week or so; the deep blue flowers are 1½ inches to 2 inches across, and very attractive. The plant is only about 6 inches or 9 inches high. Of other *Campanulas* now blooming I may mention the pale blue *C. hirsuta* and the little gem *C. Erinus*. The latter has deeply-toothed leaves and deep blue flowers. Most *Sedums* have passed out of bloom. The yellow *Sedum middendorffianum* flowered till the first week in September, and its leaves, now a deep red, are ornamental still. *Sedum sibiricum* with its deep crimson flowers is still exceptionally bright, and equally attractive is *Sedum Ewersii* *turkestanicum*, both on account of its glaucous foliage and its pretty heads of pink flowers which are just opening. Of *Thymes* I have only noticed *Thymus carnosus* as being now in bloom. It is larger in all its parts than most of the genus, and its prostrate stems covered with spikes of fine pink flowers are very pretty. The same might be said of *Helianthemum lunulatum* with its compact growth of grey leaves, now studded with yellow blossoms, and of the orange *Erigeron aurantiacum*, which is just blooming for a second time. *Hieracium cubrum*, which is in full bloom, is certainly a shade deeper than its orange companion, but it is not red in spite of the name, and as it has

the rambling habit of the ordinary *Hawkweed* it should be used with care. Very pretty still is *Dianthus versicolor* with its crimson blossoms, and *Chrysogonum virginianum*, which for a second time this year is unfolding its deep yellow flowers close to the ground. *Asteriscus maritimus* is also an exquisite plant for the rock garden, but it is hardy only in very sheltered places near the sea. The purple *Verbena venosa*, though not hardy in the North, is perfectly hardy here, and is now at its best. A very choice and rare rock plant now blooming is *Senecio leucophyllus*, growing only a few inches in height, which has silvery leaves and deep yellow flowers. Last, but not least, among dwarf plants in bloom I may mention *Cyclamen*



A SEEDLING ASTER, HON. EDITH GIBBS, RAISED BY MR. BECKETT IN THE GARDENS OF ALDENHAM HOUSE.

*hederifolium* and other autumn-flowering kinds, which prefer a partly shaded position to one in the full sun.

#### MEDIUM-SIZED PLANTS NOW BLOOMING.

The following plants can of course not be associated with the smallest alpine, but might adorn the bolder rocks. In a moist and half-shady place the blue and the white forms of *Gentiana asclepiadea* are just now very attractive, as are also the following fine forms of *Chelone*, viz., *C. Lyoni* and *C. obliqua* with purple flowers, *C. barbata* with scarlet flowers, and *C. glabra alba* with white flowers. More sunny positions are required by the scarlet *Zauschneria californica*,



the blue *Plumbago Larpentæ*, and the pink *Sedum spectabile*. A very bright yellow flower with grey tomentose foliage is the American *Chrysopsis villosa* Rutteri. Of a deeper yellow is *Bupthalmum salicifolium*, which has deep green narrow leaves. *Coreopsis rosea* is not so large as the better-known *Coreopsis lanceolata*, but its flowers, which are just appearing, are of a pale rose colour, and its foliage is very ornamental. Of purple flowers the most conspicuous just now are *Linaria purpurea* and the glorious Tyerman's Groundsel (*Senecio pulcher*). Asters, too, are unfolding their blossoms. Among the prettiest, and, for the rock garden, most suitable kinds, I will only mention *Aster dumosus*, *Aster acris*, and *Aster Amellus bessarabicus*.

#### TALL PERENNIALS FOR THE BACK OF A ROCK GARDEN.

Of tall herbaceous plants now blooming there is still quite a large number, but chiefly such as are more suitable for the border or margin of the shrubbery than for the rock garden. Especially might this be said of the numerous Sunflowers, *Rudbeckias*, *Solidagos* (Golden Rod), *Helenium striatum*, *Tritomas*, &c. All these can only be used in the rock garden when they form the background and when a barrier of some kind is interposed between them and the dwarfer rock plants. Most effective tall plants and well suited for bold rocks are *Desmodium japonicum* and *Desmodium penduliflorum* (syn. *Lespedeza bicolor*), the former with pink and the latter with purple flowers. Their arching shoots, covered with flowers at this time of the year and gracefully projecting beyond some prominence, give a natural and pleasing effect. Much stiffer and more sturdy is the scarlet *Lychnis chalcedonica* or the purple *Rudbeckias* *R. purpurea* and *angustifolia*. Particularly elegant is the tall yellow *Rudbeckia Golden Glow*, but it requires plenty of room.

#### WORK IN THE ROCK GARDEN.

Work is plentiful enough, for now is an excellent time for rearranging plants or for making additions to old or constructing new rock work. As, however, these operations will be exhaustively dealt with in another series of essays on the subject of "Rock Garden Making" I need not go into details here. As the wet weather seems likely to continue, drainage in the rock garden should now

be attended to, especially for plants which love a comparatively dry position, such as *Opuntias*, *Androsaces*, &c. With regard to such *Androsaces* as have their leaves in large rosettes, care should be taken that these rosettes of leaves rest on stones and not on soil, where they would probably rot off during a wet season.

Elmside, Exeter.

F. W. MEYER.

## THE ROSE GARDEN.

### HYBRID TEA ROSE MME. JULES GROLEZ.

SEVERAL notes have appeared in THE GARDEN about this excellent Rose, and, having grown a number of plants of it, I can thoroughly endorse all that has been written about its good qualities. Introduced by M. Guillot as long ago as 1897, it seems to have been missed by many of those who grow Roses solely for beautifying their gardens and not for exhibition. In a season like that of the past summer it is a great deal to be able to say that no other Hybrid Tea has endured the inclement weather so well as this variety, and if I were asked to name the twelve best Hybrid Teas it would most certainly be included amongst them. Though not by any means a strong grower it is a robust and sturdy one, and holds its blooms erect on very stiff stalks, and never requires disbudding. At the time of writing (September 16) mildew is rampant, owing to a great extent to the very low temperatures which we have been registering. I notice, however, that the Hybrid Teas with stiff shiny foliage are not much troubled by this scourge, and in this category I would place the variety under notice, M. Bnnel, *Souvenir de Mme. E. Cauvin*, and *Violoniste Lévêque*. Nothing is more pleasing to the eye than the young foliage of most of the Hybrid Teas, and the beauty of Mme. Jules Grolez in this respect is very marked,

being further enhanced by its thorns, which are a bright red. Although Mrs. W. J. Grant is perhaps more brilliant in summer, when autumn comes I far prefer Mme. Jules Grolez. Its beautiful silvery pink blossoms reflex in a most charming manner, as will be seen in the illustration, while its firm petals seem to resist rain and damp infinitely better than Mrs. Grant. But whatever the season may be, Mme. Jules Grolez is an abiding acquisition. It has, alas! a fault—it is scentless.

Worcestershire.

ARTHUR R. GOODWIN.

### BEST ROSES OF THE SEASON.

#### BEST TWENTY-FOUR OF ALL CLASSES.

A NOTE from a London suburban gardener may be of some service, although not necessarily so to your original correspondent. All the Roses mentioned can be thoroughly relied on if attention is given to initial preparation of the ground.

#### TWELVE STANDARD ROSES FOR THE GARDEN.

The chief points taken into consideration in forming this list are: (1) strong growth, (2) freedom of flowering during summer and autumn, (3) hardiness, (4) variety of colour.

*Caroline Testout*.—Well known; at time of writing (September) two standards in my garden carry forty-nine flowers in all stages of development; one of the best of its colour; pink.

*La France*.—Silvery pink; too well known to need description; must have a cool root-run.

*Ulrich Brunner*.—Cherry red; makes a fine standard.

*Prince Camille de Rohan*.—The best dark red Rose for the garden; none of the dark red Roses are very good in the autumn, but this one is the freest.

*Marquise Litta*.—Carmine; an excellent flower; good shape; if treated well can be relied on.

*Captain Hayward*.—The best crimson; very free, and always opens well.

*General Jacqueminot*.—Another sweet-scented old Rose that should be grown; bright crimson.

*Mme. Hoste*.—Pale lemon; the hardiest of the yellow Teas; very free-flowering.

*W. A. Richardson*.—Makes a fine standard; all shades of yellow; never without a bloom with me from June to November.

*Viscountess Folkestone*.—Flesh white large flowers, and very free; one of the best.

*White Maman Cochet*.—A Tea, but quite hardy with me; good grower, and magnificent flowers.

*Antoine Rivoire*.—A Hybrid Tea; creamy white, deeper in centre; free-flowering, and a good grower; flower opens flat, but fine shape otherwise.

All these recommended for standards can be equally well grown as dwarfs, with the possible exception of *White Maman Cochet*, which is at its best as a standard. I would, however, add the following

#### BUSH ROSES.

*Killarney*.—Blush pink; a Rose that does very well with me on a clay subsoil; its flowers are very beautiful.

*Mme. Abel Chatenay*.—A beautiful Rose, unique in its colouring and curious habit of twisting its petals like a Cactus Dahlia; a deep *La France* outer petal, deepening to salmon in centre.

*Mrs. John Laing*.—A well-known flower; good in every respect.

*Mme. Cadeau Ramey*.—A Hybrid Tea; very free-flowering; flesh tint, deepening to yellow



HYBRID TEA ROSE MME. JULES GROLEZ (SLIGHTLY REDUCED).



at the base; has been very fine with me this year.

*Mme. Jules Grolez*.—A beautiful, though not large Rose; deep shade, clear pink.

*Grüss an Teplitz*.—A beautiful Rose; wonderful colour; very free-flowering; semi-climber.

*Maman Cochet*.—A fine Rose that has not been at its best this autumn, owing to the heavy rains, but it should be grown; for a Tea it likes rich, heavy soil. No garden should be without some of the

*China Teas*, such as *Mme. Eugene Resal* and *Laurette Messimy*, both excellent if one's choice is limited, and to finish my list of two dozen I will add

### THREE CLIMBERS,

and, still keeping in mind the original idea of autumn-flowering, *Mme. Alfred Carrière* is the best white; *Longworth Rambler*, bright pinkish crimson; and, as *Grüss an Teplitz* and *William Allen Richardson* have been already mentioned, I think I will add *Gloire de Dijon* to conclude my list.

I think your correspondent C. W. Crosby has rather misunderstood the original enquiry, or he would not have recommended such Roses as *Marchioness of Londonderry*, *Ulster*, *Bessie Brown*, *C. Gillemot*, *Helen Cambier*, *Kaiserin Augusta Victoria*, *White Lady*, &c.; they are not decorative garden Roses. If one has the space, the proper way to grow Roses for the decoration of the garden is to keep each sort distinct by planting it in a group or bed by itself. Treated in this way, all the following can be recommended: *La France*, *Caroline Testout*, *Viscountess Folkestone*, *Mme. Eugene Resal* (this is particularly good), and *Grüss an Teplitz* for dark red. All these Roses are fine bedders, and with the exception of the latter, which is rather taller in its growth, are of similar habit.

HERBERT E. MOLYNEUX.

*Brantwood, Balham, S.W.*

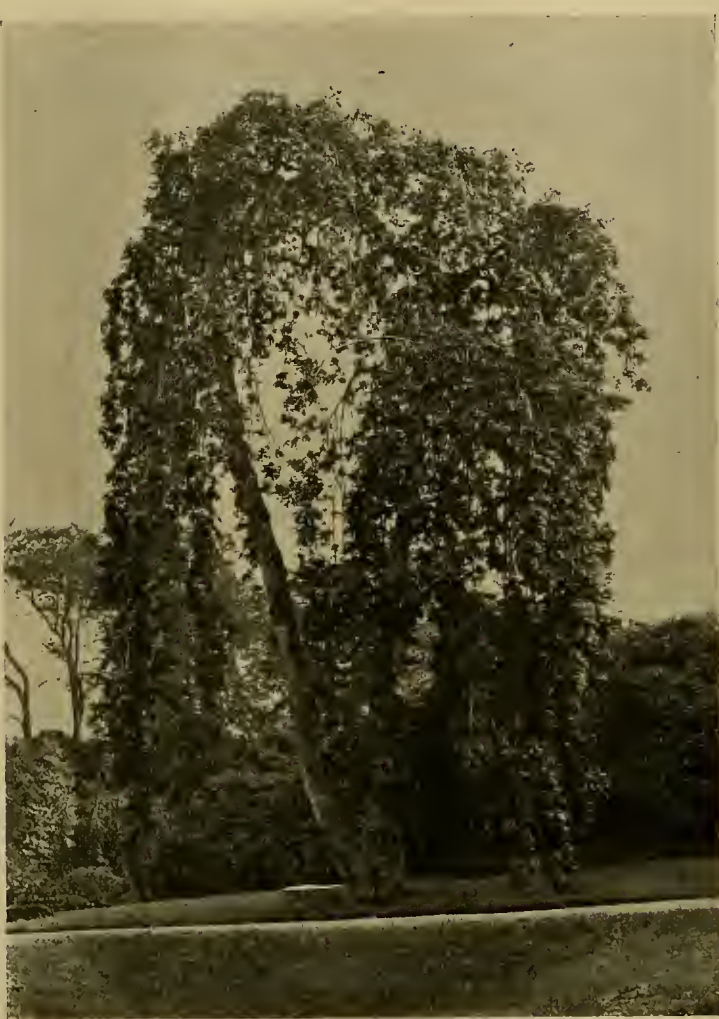
### ROSES AT ROTHESAY.

In a few weeks time many people will be preparing to plant a few Roses, and if they do not wish to be disappointed in their selection they will soon be placing their orders with their nurserymen. It is so difficult to select a few good varieties from the number which most firms catalogue that a few notes on one or two Hybrid Teas may not be out of place. This is not an ideal Rose growing district, being subject to late frosts and with a very large rainfall. A few varieties do very well, and some even better than I have seen them elsewhere. The following is a short description of a few:—

*Augustine Hamont*.—This is one of the newer Roses; the colour is of a deep rosy carmine on the outside of the petals, the inside of a silvery pink with a yellow base. The form is good, having a good depth of petal, the growth vigorous. This should be included in all collections where Roses are grown for cutting and decoration.

*Antoine Rivoire*.—The colour is a rosy flesh on a yellow ground, shaded with a border of crimson. It is a first-class garden Rose, the form good and the plant vigorous.

*Clara Watson*.—This is a first-class Rose for this



WEeping ASH IN THE PALACE GARDENS, DALKEITH.

district, doing far better than I have seen it elsewhere; it is without doubt the best for this part of the country. It is a very pleasing colour, being of a pale salmon, tinted pink.

*Caroline Testout*.—The colour is a satiny rose, with a brighter centre, a fine large exhibition flower, but also a free bloomer. The plant is vigorous, and the flower of good form and very sweet scented.

*Grüss an Teplitz*.—This is a first-class autumn-blooming garden Rose, being very free flowering and of a semi-climbing habit. The flowers are in clusters, the colour being of a bright scarlet. The foliage itself is handsome—a bronzy green.

*Gustave Regis*.—This is a really charming Rose, exquisite in bud, which is long and pointed, the colour a deep canary yellow with orange centre, and a streak of crimson down the back of the petals; a beautiful buttonhole Rose.

*Liberty*.—A charming Rose, of a brilliant velvety crimson of an even shade throughout. The petals are well reflexed. It is a charming Rose in the bud, very free and vigorous, and beautiful for the garden or for decoration. It is spoilt for the exhibition table by being undersized.

*Mme. Abel Chatenay*.—This is just now (September) a charming picture, flowering here most profusely. It is of a carmine-rose colour, shaded salmon, the reflexed portion of petal being of a silvery pink. It is very sweet scented, and is one of the best Hybrid Teas for garden decoration, and should be found in all collections.

The above is not, of course, a complete list of the best Roses, but just a few that were noticed doing particularly well.

Rothsay.

G. M.

LADY THORNYCROFT, Steyne, Bembridge, near Ryde, Isle of Wight, writes:—The best autumn-blooming Roses in our garden here this autumn are *G. Nabonnand*, *General Shablikone*, *Marie van Houtte*, *Anna Olivier*, *Princess de Sagan*, *Mme. Alfred Carrière*, *Mr. Scharman Crawford*, and *Kaiserin Augusta Victoria*. All of these are full of blooms and buds, and are in the best of foliage.

*Princess de Sagan* is our only dark red Rose which looks in full health. It is altogether a most desirable Rose, each bloom remaining bright red until the petals fall.

*Mme. Alfred Carrière* is covered with blooms, and goes on flowering until well in November, and is a very charming Rose with delicious scent.

*Grüss an Teplitz* this year is not as good a colour as last year and has lost a great many of its leaves.

*Ulrich Brunner* looks very healthy and has some good blooms, but it is not a Rose I like at all.

*Mme. Cadeau Ramey* and *Mme. Abel Chatenay* are both lovely and have a few charming blooms.

*Sultan of Zanzibar*, *Fisher Holmes*, and *Prince Camille de Rohan* all look very ill indeed, but they were only put in last November, and have had a trying summer.

Of the *China Roses* *Laurette Messimy* and *Cramoisie Superieure* are the best, each having a number of blooms.

*Alister Stella Gray* also is still in bloom, and *Wichuriana* is covered with buds and blooms.

*Gloire de Dijon* has not done well, but *William Allen Richardson* and *Rêve d'Or* are very good indeed.

CAROLINE TESTOUT has been, and still is, magnificent; *Viscountess Folkestone* the same; *Docteur Grill* is lovely now, as it has been all the

year. *Maman Cochet* and its white variety beautiful as usual. In the early part of the season *Margaret Dickson*, *Gloire Lyonnaise*, *Ulrich Brunner*, and *François Michelin* were finer than I ever saw them before. *Marie van Houtte*, *Augustine Guinoisseau*, *Mme. Ravary*, *Billiard et Barré*, *Francisca Kruger*, *Bridesmaid*, *Edith Gifford*, *Mrs. Cocker*, *Duke of Edinburgh*, *Duke of Wellington*, *A. K. Williams*, and *L'Idéal* have all done particularly well this year, and *George Nabonnand* is now splendid. It is the best of autumnals, but no use in the summer. *La France* and *Mrs. John Laing*, usually splendid in this garden, have done very poorly this year.

F. G. COLERIDGE.

*The Hermitage, Twyford, Berks.*

## TREES AND SHRUBS FOR ENGLISH GARDENS.

### WEeping TREES.

PLANTING these with a niggardly hand is, after all, not what is wanted, that is, if we are to derive pleasure from their presence in combination with the general run of our park and woodland trees. Single specimens dotted about here and there, and planted ever so wisely, are by no means to be compared with those clumped or massed in threes or fives, and at irregular distances apart, a fact the truth of which dawned forcibly upon me when visiting a well-managed



and well-planted estate in the south of England. Generally, as seen, weeping trees like those of upright habit are planted singly, perhaps in appropriate enough situations, but in such a way as to give one the idea that the planter had this rigidly before him, that such a class of trees spoils the landscape, and requires to be very carefully dealt with and in unusually small numbers. Such ideas may have done well enough for the old school of planters, but nowadays hard and fast lines are not tolerated, and the departures from the strict routine of century-old ideas are nowhere more prevalent than in matters connected with trees and shrubs, their planting and after management.

A group of the Weeping Willow, some eight or nine in number, planted in no cramped or confined spaces, by the side of a fair sized lake, has a most pleasing and effective appearance, but they are planted far from any other trees and shrubs, and on the gently sloping, grassy bank, thus, I fancy, adding much to their charm and beauty. No single specimen of the same tree could have produced such an effect as this clump, which covered nearly a quarter of an acre, but yet did not look out of place, the size and outline of the grounds being boldly laid out and quite in keeping with the broad sheet of water. Within sight of these, but several hundred yards away, a mass of the red-stemmed Dogwood quite enlivened the end of the lake; while in a recess, where the margin of a plantation came nearly down to the water-side, were three fine old trees of the Hemlock Spruce, or rather what to me appeared to be a weeping form of this Canadian Conifer. These with their rich background of Scotch Firs had a truly imposing appearance, the long, cord-like twigs hanging gracefully down for more than a couple of feet. Even at their advanced size and age the trees were by no means cramped for room, although when viewed from the opposite side of the lake the trio seemed as if but one gigantic specimen. For small places such a method of planting would never do; although even then it is wise policy to have only a few well laid out clumps in preference to single specimens dotted about here and there, and which latter are hard to place so that they may look well and be in keeping with their surroundings.

To those with plenty of ground space I would say plant no, or very few, single specimens, but, instead, clumps or masses, particularly of weeping, fastigate, or brightly tinted trees and shrubs, and these, if well arranged, will afford an infinitely greater amount of pleasure than single subjects, be they dotted about ever so thickly, and planted with more than a usual amount of care and attention.

That there are exceptions to the effect produced by single specimens generally will readily be seen from the accompanying illustration of a well-developed example of the Weeping Ash. This tree ramifies to a great extent, and is, perhaps, the best weeping tree for using as a single specimen, few others making a more interesting and distinct picture.

All over the country are to be found fine old trees of the Weeping Ash, such as shown in the illustration. Kent is abundant in weeping forms of the Ash, and a drive from London to Chislehurst is well repaid by the quantity of these as well as other rare ornamental trees that are to be found in the gardens and grounds. A tree of the Weeping Ash hardly 30 feet high might be pointed out, the spread of whose pendent branches is 50 feet in diameter, and that is not unusual when the tree is growing on rich damp loam. The golden form of the

Weeping Ash (*F. Excelsior aurea pendula*) is not desirable, at least I have never seen a specimen that would not have been the better of removal, so far at least as the appearance of the surroundings were influenced by it.

To sum up concisely, I may say that, generally speaking, weeping, upright, or other peculiarly-habited trees and shrubs look better in clumps of irregular size if the grounds are boldly laid out, while at the same time a few species, such as the Ash in question, which ramify extensively can with all appropriateness be used as single specimens. W.

A FAMOUS TREE.

(*PTEROCARYA CAUCASICA*.)

THERE is a special beauty about *Pterocarya caucasica* when full of foliage and covered with its peculiar catkins that makes one wonder why it has not been more extensively planted, especially as it seems to have been introduced from Southern Russia quite 100 years ago. I think, however, that the reason for its absence in the majority of gardens may be traced to the fact that it is one of the earliest trees, either indigenous or exotic, to push its foliage, and that both young leaves and catkins are often cut by spring frosts. The catkins, both male and female, are quite destroyed (this was the case this year), and, although young foliage breaks away again, the fact of the susceptibility to frost probably led to its exclusion in future planting operations under the impression that it was really more tender than is actually the case.

The subject of the accompanying illustration—which, so far as I can gather, is by far the largest specimen in England—was probably planted in the early twenties. I thought at one time it was considerably older, but the experience of the last ten or twelve years has shown that it grows and develops in size both of trunk and branch at a great pace. I know of no tree whose root-action is at once so vigorous and so extended, and it should never be planted in near proximity to anything that is likely to suffer from its underground activity. Strong fibres have been found quite 30 yards from the stem. Our tree was, unfortunately, planted on a site not far distant from fruit tree, flower, and Vine borders, necessitating the cutting of rather deep trenches to prevent its roots encroaching on these borders. Careful measurement gives the height of the tree 45 feet; girth of stem, 3 feet from the ground, 17 feet; and spread of branches (circumference) nearly 110 yards. I had not heard of the tree ripening its seed in England, and was unable for some years to procure a seedling, but in the summer of 1899 a tiny plant was discovered in a warm corner. This has grown into a healthy little specimen, and will be planted this autumn in a prominent position to perpetuate the memory of the parent tree, for this is doomed at no very distant date. Several of the largest branches are nearly horizontal in growth, and the strain, especially when they are clothed with foliage and catkins, is naturally very great. The tree is propped in all directions, but I fear some day the weight will prove too much for the props.

Claremont.

E. BURRELL.

NEW CARNATIONS.

A VISIT to Edenside (Mr. Douglas' nursery) in July was quite sufficient to prove that, good as are the Carnations already in commerce, better are yet to come, and amongst the new ones being sent out for the first time this autumn the following attracted my notice. I

might say they are all show flowers, but there is nothing miffy about their growth, and no doubt they are of equally good, if not better, constitution than those we have already had from the same source.

Lord Justice first attracted my notice, a fine fancy after the style of Queen Bess, but an improvement on that flower, heavily marked scarlet and lilac on deep yellow ground; Ormonde, another good flower, bright red margin; Seymour Corcoran, a new self of amber colour, of fine shape and form. Amphion took my fancy as one of the best of the new ones, a very lovely flower that can be highly recommended. Another good flower was Countess of Verulam, with a heavy margin of scarlet, an excellent bloom; and Gronow, very perpetual, that will make a stir on the exhibition bench if I am not mistaken. There were many others, but these I especially noted. H. E. MOLYNEUX.

Brantwood, Balham, S.W.

[We are sorry two or three varieties were incorrectly spelt in Mr. Molyneux's excellent article last week on "Border Carnations." "Huella" should be Tenella, and for "Lanzan" read Lauzan.]

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

ROOT PRUNING OF FRUIT TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I shall be obliged if you will answer the following questions *re* root pruning of fruit trees: What is the effect of root pruning (1) on Pear and Apple trees growing in the open on garden walls? (2) Peach and Nectarine trees under glass? Do you expect good crops of fruit the following year after pruning, and do you expect the fruit to be as good in size and quality? PRUNUM.

[The question is frequently asked as to what is the value of root pruning, and when it should be done and how. Though a simple matter, the work to be a success needs a certain amount of care. It is also asked, Can good crops be expected the season following root pruning? And we say yes, certainly, but especially in later years the effect will be seen in better crops and finer fruit. Of course there are failures which often occur by what may be termed mutilating or crippling the roots. If this is done so that the trees suffer it stands to reason the crop will fail. It is foolish to cut the roots so severely as to injure the trees. Trees properly planted and afterwards transplanted if necessary are a mass of fibrous roots, and such trees do not require root pruning. It is those trees with a few strong roots and few fibres that require taking in hand. That transplanting is as effective as root pruning, and though such trees are never root pruned, a great deal depends upon the growth, the soil, and other details. Trees not pruned too hard but allowed to grow freely and crop well do not need root pruning; it is the barren ones with strong top and root growth that need it.

Trees planted in rich soil or soil heavily manured at the start are most likely to need root pruning. Of course this means food, but not in a young state, before they attain fruiting size, should quantities be given at the roots. Take young Peach and Nectarine trees under glass, the question is asked, What is the effect of root pruning? If the trees are not more than ten years old I would advise quite different treatment to Apples and Pears in the open; at the same time I do not advise root pruning for old trees under glass. It is far better to grow young trees than old ones.



(1) Apples and Pears on open garden walls are more readily root pruned than trees in the open, as the wall keeps them within bounds on one side of the roots, and by making a semi-circle round the other portion the work is not difficult. There is no better time to prune than now, that is, before the leaves fall, say from the end of September till the end of October. I have done this work even up to the end of the year in mild seasons, but by doing the root pruning now new fibrous roots form before the winter. The effect of root pruning on gross trees causes fruit buds to form freely next season, it prevents so much useless or non-fruiting wood, and encourages a more fruitful growth. The effect is less seen next season than in later years. I do not practise root pruning with trees fruiting freely, and with young trees, say, from two years to six years, I have found lifting and replanting more effective than root pruning, as young trees at the start are often inclined to make gross wood. They should, of course, be carefully lifted at this season just before the leaves fall and carefully planted. We see how well young trees in fruit nurseries succeed; there the trees are frequently transplanted, and this induces fibrous root growth. In root pruning it is important to get a good workable space, say, for instance, at least 18 inches of room in the trench, or even more with older trees. With young trees at least 3 feet space should be allowed from the wall to the trench. In removing surface soil it is advisable to save this to place next the roots that are cut, make firm the soil, carefully spreading out fibrous roots as the work proceeds. With older or large trees it is not necessary to do the work in one season, half may be done now, the other next year. It may be advantageous in poor soils to add new of a loamy nature, or such materials as bone-meal, wood ashes, or burnt soil.

(2) We now come to trees under glass, and here the work is equally important; indeed, young trees under glass often need root pruning, and much the same advice is applicable. With young trees I would advise transplanting, and in lifting or transplanting the roots must be cut so that in a measure transplanting is root pruning, but by simply root pruning the Peach and Nectarine there is no loss of crop the following season. The work is best done before the leaves fall or just at that period, and great care should be taken to preserve the small roots; large, coarse roots should be shortened back to within 18 inches of the tree. Replace these roots in an upward direction, and make them firm as the work proceeds. By doing the work now there need be no loss of crop or size of fruit next season. If the soil is dry and the roots thoroughly wetted keep at least 3 feet from the stem of the trees with forks and spades. It is an easy matter to get well under the trees and cut the strong roots, but great care should be taken that the soil is well filled in and made firm or sinking will follow. After the lifting or pruning trees should be kept as cool as possible, and with trees bearing much foliage it is a good plan to damp overhead daily for a time; this prevents the bark shrivelling. Do not allow the borders to get sodden, but the roots should be kept moist.—G. W.]

### ROSA LÆVIGATA.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Mr. W. Botting Hensley's most interesting "History of the Cherokee Rose," a synonym for *Rosa lævigata* (page 167), is the first detailed account of this lovely species that has met my eye. Much confusion has been caused by its numerous synonyms, and it is to be found growing under the names of *R. lævigata*, *R. sinica*, the Cherokee Rose, and the Camellia Rose. It is probably not sufficiently hardy to flourish in the colder parts of this country, but in the south-west it succeeds admirably and presents a charming sight in May when covered with its great single white flowers. Besides having been grown so long and extensively

in Georgia as to earn the name of Cherokee Rose, it is common in the West Indies, Madeira, and some parts of India. Being thus widely distributed in various parts of the globe, it is not surprising that there are different forms of this Rose, some of which are superior to others. The finest I know came as a small plant from the North-west of India. This is growing at Kingswear, South Devon, and has thriven amazingly, being well covered with foliage to the base, which has a spread of 30 feet, while its highest shoots are 35 feet from the ground. It bears flowers which average 5½ inches in diameter, but some blossoms that I have measured were 6 inches across. An excellent illustration of this Rose, slightly reduced, from a drawing by Mr. H. G. Moon, appeared on page 29, vol. ix. A few miles distant a plant of the so-called Camellia Rose, which was brought from the Riviera, is growing, and I compared the flowers of this with those of the Kingswear Rose when both were in bloom, with the result that I found the blossoms of the latter to be nearly half as large again as those of the former, thus showing

the south of it, was flat, and on rapping this place it was found to be hollow. I think the outer bark was never cracked; but on slitting it up I found that it bridged over a space 1 inch, 2 inches, or 4 inches wide when the wood was bare, and was in process of being healed over by the advance of a callus from each side. This healing seemed to go on slowly till the wound was exposed to the air and the cavity a home for vermin and rot, but after the slitting up the callus grew freely and the tree improved in health. If this be of the nature of what you call *sunstroke*—in spite of the bark not cracking—can an explanation be given of the action of the sun, whether in killing the bark or the cambium or in stimulating the growth of a previously overshadowed tree? I have seen at least one case of the same thing in a transplanted Birch. STEPHEN A. MARSHALL.

[We presume that the cases referred to by you are the same as *sunstroke*, despite the bark not cracking. This cracking may be more pronounced in some trees than in others. As this question of *sunstroke* is at present as it were in its infancy,



THE FAMOUS *PTEROCARYA CAUCASICA* IN THE GARDENS OF CLAREMONT, ESHER, A RESIDENCE OF H.R.H. THE DUCHESS OF ALBANY.

the difference that exists between forms of the same species. Many cuttings have been struck from the Kingswear Rose and given away when rooted, but these have shown little vigour and take a long time to grow into good plants. It is quite another matter when this Rose is budded on the *R. polyantha* stock, as it then makes rampant growth and becomes a large plant in a few years, often blooming the second season, whereas cuttings rarely flower under four or five years. S. W. F.

### "SUNSTROKE" OF TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have in recent years transplanted out of copse woods a number of seedling wild Cherries, 15 feet to 25 feet high, and have been much puzzled by the stems of several of them showing signs of failure, which I think may be akin to what is described as "*sunstroke*" in your issue of the 6th ult.

The first thing I saw was that a stripe up the trunk of the tree, generally, but not always, on

we shall doubtless learn more of the matter later on, but at present it appears to us that the mischief originates in the cambium and in the more sensitive inner bark adjoining, as these portions are naturally more readily affected than the rougher bark on the outside.—Ed.]

### BULB GROWING IN ENGLAND.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Everyone with the interest of the country at heart must be glad to learn by the editorial article on page 189 of *THE GARDEN* that bulb growing is making such rapid strides in that portion of England which seems intended by Nature to compete with the neighbouring country of Holland viz., the Eastern Coast. With the general outcry concerning the decadence of agriculture, it is quite refreshing to read of something likely to yield such good results, for we have certainly for many many years paid far more to the foreigner for bulbs than we need have done if their culture had been seriously taken up in this country. That



home-grown bulbs are far more easily obtainable than they have been a few years since has been several times brought under my notice of late, and that they may continue greatly to increase is my fervent wish.

In conjunction with the editorial article in *THE GARDEN*, the following sentence in the preface to the "New Guide to Herbaceous Plants," just issued at Kew, affords pleasant reading: "Mention must be made of the Kew collection of bulbs. These, though largely used to produce a decorative effect in the spring, are in great measure of botanical interest. They have for the most part been grown at Kew since 1886 from a small original stock by the same methods as are employed in Holland. At the beginning of summer they are lifted, harvested, and planted out again the following autumn." Anyone accustomed to see the spring display of bulbs will agree that they are equal to the best Dutch samples, and that they have been grown so long at Kew will surprise many, and at the same time prove that there is no insurmountable difficulty in the matter. H. P.

## GARDENING OF THE WEEK.

### KITCHEN GARDEN.

#### CABBAGE.

**A**LTHOUGH one of our commonest vegetables, the Cabbage is probably the most useful of all, as there is no season of the year if a careful and judicious system of treatment is practised when a good supply may not be had. In my opinion there are far too many kinds of Cabbage cultivated, many of which cannot be relied upon. I have made very extensive trials during recent years, and I have found nothing to equal or nearly as good as a true stock of Ellam's Early for the first planting; it is, as its name implies, very early and of excellent quality, the heads quite large enough for general use, and it seldom runs to seed. If I were to be restricted to one variety I should unquestionably keep this. Sutton's Flower of Spring is also excellent but later, and the head larger; it is of good quality and a fine market variety. Carter's Model is the best kind I am acquainted with for exhibition purposes during spring and summer; it is of perfect shape and just the right size, but the seed must be sown very late or a large percentage will bolt.

To ensure a succession of good heads several plantations in various parts of the garden should be made at this season. If the ground has been heavily manured for a previous crop it will be quite sufficient, unless the land is of a poor and hungry nature, then another good dressing should be given, and nothing is better than good farmyard manure. Mould up the plants well before severe weather sets in as it is the stems of the plants which are the most likely to be damaged. A large brown grub often eats off the autumn plants just under the surface; these should be searched for and destroyed, and the vacancies made good. Prick out a good batch of the smallest plants in skeleton frames or on a south border where they can be protected; they will often prove serviceable after a very hard winter. Coleworts, owing to the frequent rains, have made much progress, and the earlier plantings will soon be fit for use, but the later ones will probably prove to be the most useful. In many gardens a supply of

#### FRENCH BEANS

has to be kept up all through the winter. Frames filled from the late sowing should now be placed on the south border, but abundance of air must be admitted whenever the weather will permit. If covered with protecting material when frost is likely to occur these will continue to bear for a long time yet.

Seedlings from seed sown in heated pits will now be well above the soil, and the seedlings should be

carefully nursed, but at the same time endeavour to promote a stout sturdy growth. Fire-heat should only be given during cold nights. Earth up the plants to the seed leaf with light soil which has been warmed. Make another good sowing of the variety Canadian Wonder in 8½-inch pots; these should be well drained and filled with a light compost, raise the plants in a slight heat, but do not allow them to become drawn.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### THE FRUIT GARDEN.

#### STRAWBERRIES FOR FORCING.

THE first point towards success in forcing Strawberries is to grow the plants well in the preceding season, and no subsequent treatment will compensate for defects in this matter. The plants at the present time should be developing healthy sturdy foliage; soft flabby foliage is the result of a compost too rich in humus, and is not desirable, as was pointed out when directions were given for potting. Watering must be attended to, and when it is wanted give thorough soakings, frequent dribbles being almost useless. Keep runners regularly removed, and remove also side growths from the crowns, thus confining each plant to a single bold crown, for it is better to have a few strong flower spikes than a greater number of weakly ones. Should the surface soil become crusted, lightly disturb it with a pointed stick, at the same time clear away weeds. Allow the plants ample space in a sunny position to freely develop their foliage. We are trying The Laxton in a limited way, and the plants look remarkably promising, and appear to have a strong constitution. It will, however, have to be of extraordinary merit if it eclipses Royal Sovereign.

#### THE ORCHARD HOUSE.

Structures containing late Plums, &c., should be freely ventilated during the day time in fine weather. Admit air at night and keep the soil moist, but guard against an excessive moisture either in the soil or atmosphere, as it would be liable to cause the fruit to split and spoil the flavour. Such late Plums as Coe's Golden Drop, Reine Claude de Bavay, and Ickworth's Imperatrice will remain in good condition and considerably lengthen the Plum season if carefully gathered when ripe and placed between sheets of tissue paper in shallow padded boxes, and stored in a dry, cool room. Apples, Pears, Plums, &c., should as soon as they are relieved of fruit be moved out of doors and stood upon a firm bed of ashes or upon slates in a sunny position, where their roots should be protected from heavy rainfall.

#### POTTING THE TREES.

Trees with closely-confined rooting space, as pot sorts must necessarily have, quickly exhaust their soil, and those that need repotting should be attended to once their foliage is ready to fall. In the case of trees which it is undesirable to shift into larger pots, reduce their balls of soil sufficiently to admit of a layer of fresh compost being placed around them. This can be done with the help of a small hand fork, the outside roots being disentangled and shortened by a clean cut. Ensure perfect drainage, but do not use crocks needlessly, and ram the fresh compost firmly. This should be in a tolerably dry state, and consist of about three parts strong maiden loam and one part of dry horse manure, moderately mixed with crushed mortar rubble, bone-meal, and soot. Those trees that do not require to be repotted should have all the surface soil that can be removed cleared away, and be firmly top-dressed with fresh compost. Young trees that occupy small pots and have an abundance of roots should be shifted into pots one size larger. Carefully turn them out and slightly disentangle the side roots by pricking over the outside soil, and shorten the strongest so that more fibrous ones may be formed. Pot firmly, as advised for older trees, and give sufficient water to moisten the soil through. In purchasing trees it is advisable to select those that are established in small pots, say, about 9 inches in diameter, but

if trees are chosen from open quarters place them in as small pots as their roots can be conveniently got into, and after potting plunge the pots into a bed of ashes or similar material, so that the roots do not suffer from fluctuations of atmospheric conditions, and are encouraged to make growth before the sap is dormant. The following are excellent dessert kinds suitable for the orchard house: Transparent Gages in variety, Oullin's Golden, Golden Esperen, Jefferson, Kirke's, Reine Claude de Bavay, Coe's Golden Drop, and Ickworth's Imperatrice. T. COOMBER.

*The Hendre Gardens, Monmouth.*

### INDOOR GARDEN.

#### PRIMULA SINENSIS.

THE plant should be removed from the cold frames to a light and airy structure where they can be protected against frost and damp. Wash the pots, and set the plants well apart to allow sufficient light and air to pass amongst them.

#### HUMEA ELEGANS.

As the pots become full of roots pot on the plants, using a rich open compost of loam, dried cow manure, and charcoal. Thorough drainage is indispensable. Having tender roots great care must be taken in potting. After the plants are established encourage them to make free growth by giving plenty of water. These plants when kept too dry at the roots during winter are sure to be attacked by thrip and spider, which is fatal to their well-doing. A cool airy house or pit where the plants can be kept near the glass is the best position for them.

#### FUCHSIAS.

Cuttings that are rooted should be placed singly in small pots in a mixture of loam, leaf-soil, and sand. Keep them near the glass in a warm, moist atmosphere, to encourage a short jointed sturdy growth. Many of the newer varieties need but little stopping or training. A neat stick should be placed to the leading growth. Green fly and red spider are great enemies to the plants, but with the use of the syringe they may be easily prevented. Another batch of cuttings may be put in for succession. Heliotropes and Lantanas require somewhat similar treatment.

#### ACHIMENES

that have passed out of flower should gradually have less water as the foliage and stems show signs of decay. Remove the stems as soon as dead and store the pots upon their sides in a warm, dry place, where no moisture can reach them until the time of starting again. Later batches should be given liberal supplies of water, with frequent applications of weak liquid manure.

#### FREESIAS.

The earliest batches will now require the support of neat sticks. Take care not to place them too near the bulbs. Freesias will not stand forcing, and it should not be attempted until the flower spikes appear. Well ripened bulbs potted early, and kept near the glass in a light position where frost is excluded, will come into flower early in December. Watering must be done with great care, and when the pots are full of roots weak liquid manure will greatly assist them.

#### ROMAN HYACINTHS

may be potted in successive batches, so that a continuous supply may be secured. The early batches in frames that are showing buds may be removed to a forcing temperature, where in a very few days they will come into flower.

Various bulbs that are plunged in cocoanut fibre or ashes should be examined occasionally, and as the tops begin to show remove the pots to a frame and subdue the light for a brief period, allowing them to progress slowly until they are wanted for forcing. The application of heat depends on the time the different bulbs are required to flower. Narcissus, single Tulips, and single Hyacinths take kindly to forcing. JOHN FLEMING.

*Wexham Park Gardens, Slough.*



## THE FRUIT GARDEN.

### GRAPES FOR MARKET.

**G**RAPE growing for market has of recent years made rapid strides; within easy reach of London by road and rail there are now numerous nurseries whose chief and, in some cases, only culture is that of the Vine. The accompanying illustration gives a good idea of the size of a typical vinery in a market nursery, and also of the heavy crops that the grower annually obtains from the Vines, such crops that many gardeners would never dream of allowing their plants to bear year after year. With good and liberal treatment, however, it is astonishing what large quantities of good Grapes the Vine will bear for many years. By allowing the leaves to remain on the ground after they have fallen an excellent purpose is served, namely, that of preventing the dust from rising. It is common knowledge that if dust settles upon ripe Grapes it is impossible to dislodge it without destroying the appearance of the bunch, because of the delicate bloom that covers the surface of the berries, and which is so easily disfigured. The most popular varieties of Grapes with market growers are Gros Colman (black) and Cannon Hall Muscat (white).

### INSECT PESTS AND THE FRUIT CROPS.

#### WAKE UP FRUIT GROWERS!

ONE would think, judging from the information given of recent years respecting injurious insect pests, and the improved appliances in the way of insecticides and sprayers which have been introduced, that the foes would be entirely eradicated by this time, or else so reduced as to be of no account. But such is not the case. Either by the supreme ordering of Nature, or else through the neglect on part of fruit growers to take advantage of the facilities offered them by manufacturers and scientists, insect pests are just about as numerous as they ever have been. They come in greater or lesser numbers according to climatic conditions, and commit their ravages just as they did a generation ago, and are treated by fruit growers in much about the same philosophical way. Here and there one meets with a market grower who sprays his trees and wages war against his natural enemies, but the majority do not, and they accept the attacks in much the same light as they do an early spring frost or a spell of drought, as being matters over which they have no control.

While this spirit prevails insect pests will never be eradicated, and the men who make a fair attempt at it are sorely handicapped by the lethargy of the so-called philosophers who do nothing. This matter, like many others dealing with land cultivation in this country, is suffering from the want of combination. What is the good of a man spraying his trees and taking steps to keep down insect pests when his neighbour allows them free play. It is hard on the striving individual, but he is the victim of circumstances, because, unfortunately, there is no law which compels fruit growers to observe the importance of cleanliness.

With bright exceptions here and there the majority of fruit growers seem to look at the matter in this light. They have certain opposing forces to deal with, including spring frosts, cold winds, want of rain or too much of it, and insect pests. Sometimes Nature deals kindly

with them, they suffer through none of these causes and are thankful, but if on the other hand the fruit crop wholly or partially fails through unfavourable weather or living enemies they regard themselves as helpless to avoid the catastrophe.

Whatever may be urged against the climate this season—and there have been just reasons for complaint—fruit growers generally have not suffered through the ravages of insects nearly so much as in former seasons. The reason is obvious. The weather, which has been against the fruit, has not been favourable for insects, and so, for the fruit grower, some good has come out of evil. Cold nights have been against the foes, heavy rains have dislodged them from the trees, and the appearance of hardy fruits, such as Apples and Pears, is fresh and clean, though the season is nearly at an end. In the case of Damsons and certain Plums I must make exception, for aphids has played havoc with them. Early in the summer a cold easterly wind blew for days together, and the country people in my district said they knew what would happen.

They regard an east wind as the originator of blight, or they fancy that it is borne on the wings of the breeze from distant regions, but somehow it generally comes when these conditions prevail, and in spite of copious rains the leaves of Damsons and Plums have been curled, distorted, and blackened by the presence of the sticky pests. When the trees were "struck" fruit had set, and a timely spraying with an insecticide might have saved the crop, but the opportunity passed by, the tiny fruits turned sickly and yellow, and then fell to the ground, along with all hopes of a crop.

In the case of the Apple crop, which is occupying particular attention, there are four pests that affect growers more than others, viz., American blight, Apple aphids, winter moth caterpillar, and the grub of the codlin moth. Fruit growers as a rule are afraid of the former, as they have cause to be. In the case of their young trees they keep a sharp look out for the pests, but for some unexplained reason American blight is allowed to flourish undisturbed on the gnarled branches of the old orchard trees, whose moss-covered limbs also provide harbourage for numerous other pests. The growers say that the old trees do not pay for cleaning. Perhaps not, but they forget that the white woolly matter which protects the American

blight is borne on the breeze, and from the old trees, which in themselves are not worth cleaning, the evil is spread to valuable young specimens in the vicinity.

So far as my observation goes aphids on Apple trees seems to be on the increase. This season it has been a source of trouble, and appeared after the spell of cold wind already referred to. It shows a preference for young newly-planted dwarf trees, and many plantations have suffered considerably. Little harm has been done where the trees were sprayed at once with a solution of quassia, but some growers neglected this operation, and in these cases the leaves that have not fallen are black and disfigured.

I am inclined to think that the winter moth caterpillar is not such a dreaded foe of the Apple as some people would have us believe, because if such were the case the damage done would be considerably worse than it is. In many instances this summer I have seen Thoru hedges simply defoliated by living masses of wriggling caterpillars, and yet the Apple trees in the neighbouring orchards were not seriously affected. All the same we know what the pest is capable of, and it is to the interest of the fruit grower to keep it down, but this is only half done. People used to grease-band their trees at one time, but this has been almost discontinued as being something less than half a measure, and some growers spray with Paris green, but I have never seen anyone yet turn the nozzle of his sprayer on to the hedgerow round the orchard, though thousands of caterpillars were fattening themselves there, and the place was a veritable nursery for the increase of the pest. It seems a useless operation to spray fruit trees to destroy a pest while the same thing is allowed to increase in thousands all round.

Just now the market is pretty well supplied with grub-eaten Apples. The growers prefer to call them "windfalls," because it sounds better I suppose, but if they are looked over it may be observed that the majority of them have the tell-tale hole, bored by the codlin moth caterpillar. This pest is the great bane of the Apple crop, but it is not a curse in every sense of the word. Every writer on fruit culture advises the timely thinning of Apples, both for the sake of the tree and also the remaining fruits, and, with a few exceptions, the advice is promptly ignored by Apple growers.



HOUSE OF GROS COLMAN GRAPES IN A GREAT MARKET NURSERY. THE GRAPES ARE RIPE, AND THE LEAVES LEFT WHERE THEY HAVE FALLEN TO PREVENT DUST.



The codlin moth grub mercifully does the work that growers cannot find in their hearts to do, though they will pick up the bored fruits and send them to market. When Apples are plentiful, as is the case this year in many districts, the ravages of the caterpillar in question are not felt to any great extent, but in a season of comparative scarcity, when it is desirable that every fruit should be kept on the trees as long as it will hang, the foe reveals its presence, and Apples fall just the same as if they were abundant. It is at such times that the grower has reason to regret that he took no steps to circumvent this persistent foe. But he probably forgets all about it before another season, and with these and other insect foes the fact remains that no concentrated effort is made to get rid of them, and until this is done it is not likely that there will be any material reduction in their numbers.

G. H. H.

## THE INDOOR GARDEN.

### CENTROPOGON LUCYANUS.

FOR those who are fond of winter flowering plants this *Centropogon*, which is a hybrid between *C. fastuosus* and *Siphocampylus betulifolius*, can be recommended as a most useful one of this class. Its flowers are produced over several months, from November onwards. They are tubular, rosy carmine in colour, and freely borne on short spurs along the current year's growth. *C. Lucyanus* was raised as long ago as 1856 by a French gentleman, M. Desponds of Marseilles. Amateurs should not find the least difficulty in cultivating it, providing they are able to accommodate it in a warm house. By warm house I do not mean a stove, but simply one having a temperature of, say, 60° at night. Cuttings will be plentifully produced in February if the tops of the old plants are cut off after flowering. They also root readily under the following treatment: Let the cuttings be 3 inches or 4 inches long, and if possible with a heel of the old wood attached, although this is not absolutely essential; place then several in 4½-inch pots filled with a light sandy soil under a bell-glass or propagating frame in a warm house. Every morning the interior of this glass covering should be removed and wiped quite dry, otherwise the moisture that has collected will be very liable to cause the leaves of the cuttings to decay and probably will also saturate the soil. This may seem a small precaution, but it is a very necessary one.

When well rooted they should be placed singly in 3-inch pots and taken out of the propagating case. As they have somewhat tender roots a light friable soil is necessary, and it must not be made too firm. A mixture of equal proportions of rough fibrous loam, peat, and leaf-mould, with a fair addition of silver sand, is suitable. Ample drainage is also essential. If the plantlets are kept near the glass their growth will be all the stronger and healthier. A moist atmosphere should be maintained always on sunny days, syringing the plants and well damping the floors, &c., when the house is closed in the afternoon. As soon as the small pots are well filled with roots repot their occupants into 4½-inch or 6-inch pots. Unless the plants are exceptionally vigorous I would prefer to make use of the former, and for this reason. As mentioned above *Centropogon Lucyanus* is by no means strong rooting, and if it should happen that the 6-inch pots were not well filled with roots, an occurrence not at all unlikely, the soil would most probably soon become unwholesome if very careful watering were not practised.

During normal summer weather the *Centropogon* may be grown in a cool pit, providing that this is closed early in the afternoon, so as to make the most of the solar heat, and well moistened. On the approach of cold weather replace the plants in the warm house, and they will before long begin to show flower. When fully in bloom remove to the conservatory, where they will prove bright and cheerful throughout the dull months. A. P. H.

### TIBOUCHINA MACRANTHA.

No one possessing a cool greenhouse should be without this valuable flowering climbing plant. It blooms throughout the greater part of the year, even during winter. The large, richly coloured blossoms of a deep violet-purple are very freely produced, although they do not remain fresh for so long a time as could be desired. On the roof of a light cool house it makes a brave show. It usually succeeds best when planted out, as indeed do nearly all climbers; when grown in a pot its growth is not nearly so free and vigorous.

During the winter time less water is naturally required than in the summer, for growth is less active. It is very necessary to provide ample drainage for *Tibouchina macrantha*, as plenty of water is required during the growing season. The want of effective and sufficient drainage is often the cause of failure to grow greenhouse climbers successfully. The soil obviously cannot be examined and the crocks readjusted if necessary as with pot plants, so that it behoves one to attend to this important matter at planting time. The subject of this note may be increased by inserting cuttings in summer of wood that is partially ripened, placing them in sandy soil under a bell-glass in a warm house.

A. P. H.

## MISCELLANEOUS.

### NOTES FROM SWANSWICK

EVEN in our old garden of unregretted memory—it was exactly the sort of enclosure, stuffy and yet draughty, which Roses most dislike—there were several Roses which did remarkably well. Mrs. W. J. Grant, which I much prefer to call by the pretty name of Belle Siebrecht rather than by the ugly and prosaic name aforesaid, was one, and Mrs. Sharman Crawford another, while there was a beautiful red Bourbon on a wall, the name of which was not known, but which I think may have been Mrs. Paul. It had been maltreated after the usual way of the awful “jobber,” by being clipped all over, old and new wood alike, with his murderous secateur, but when it recovered and sent up some strong bright red shoots we got masses of bloom from it, great full-breasted flowers, with thick petals and of fine colour—a rich crimson-pink. Does this answer the correct description of Mrs. Paul? Roses seem to change their character when misunderstood and badly treated to an extraordinary extent, and only to come back to it slowly. Like another of THE GARDEN correspondents, we found Kaiserin Augusta Victoria do nothing but make wood, and it is doing the same thing here, where a pillar plant between 4 feet and 5 feet high has only had one miserable bloom. The two pink Roses I first mentioned are doing grandly, and have had many flowers of perfect shape on quite small bushes. Grüss an Teplitz, in spite of being only turned out from a pot in spring, has grown immensely and flowered well. It is very thin, but a beautiful red, and the blooms die off neatly and respectably and quickly. Some Roses never know how to retire gracefully. The white Clusters are simply horrible in this respect. It is hideous to see a tree some 20 feet high draped with wreaths of brown lumps, sodden and obstinate, and is almost too great a price to pay for the earlier brief beauty of the bloom-time. To Reine Olga de Wurtemberg the same remarks might apply as far as its behaviour here goes. I would not be without these four Roses on any account. Caroline Testout seems to be another thoroughly reliable bloomer, and, though its shape is not so æsthetic or pleasant as that of Belle Siebrecht—for its flowers are a shade cabbagey—still, it is very lovely, and not to be dispensed with.

The Mountain Ash trees have had a tremendous crop of berries this year, which brought first of all mistle thrushes and then young bullfinches by the dozen to clear off every berry. Near here there are two trees growing within 50 yards of each other, and so far as can be seen, absolutely

identical, even in size, and both with heavy crops. The birds have completely denuded one and have not touched the other. Why?

What a detestable weed Ivy can be in a place where it has been neglected. Seedlings of it are coming up by the thousand here, and the pale yellow *Meconopsis* is nearly as bad. The ordinary yellow *Coreopsis* has a firm footing, too, but is such a neat grower and persistent flowerer that its presence is seldom objectionable. It would be impossible to go over this garden without again remarking what observers have mentioned before—the way in which weeds caricature garden plants and try to follow up the deception. In the kitchen garden there are a number of Dahlias planted, just for this year and to save the roots, in a regiment equally spaced. While they were still small, the Sow Thistle, hugely indigenous, found out that it resembled them, and set to work to crowd up close to them and imitate them as nearly as it possibly could. Even now nearly every Dahlia has its closely adherent Sow Thistle satellite pretending to be part of it, and sometimes escaping detection. I am very ignorant of weed names, but there is a thing exactly like *Potentilla* that, similarly, only grows about where the *Potentillas* do. Only the Bindweed can find no affinity, but is so brazen it does not mind. No one seems to take much interest in Oxalises. I want to know whether *O. floribunda*, for which I have a great liking and which seems to me so very superior to any of the others as a garden beauty, should be planted in autumn or in spring, and none of the books tell me this. A clump of it has bloomed unceasingly since May, and the colour is a good gay rosy pink, much brighter and livelier than that of *O. rosea*, while the flowers are bigger and stay open better than those of any other I know. I am told the white *O. enneaphylla* is extremely good, but have not yet tried it. I mean to make a rather large planting of *O. floribunda* about and round some Cistuses. The latter are still quite small, and their flowers are just about the same pink as the Oxalis in question. The name I do not know, the original having been a find from a nursery garden, where it was anonymous.

Petunias have been a ghastly failure here in this sopping season. Five weeks ago they went all brown and rotten, and have never recovered. Last year they and the zonals were the only things that did not have to be perpetually watered, whence their measure of popularity, but their stickiness, smell, and excessive fragility of stem are all against them, and, since I never remember hearing anyone say they liked them, it is curious how they are, all the same, to be found in nearly all gardens.

M. L. W.

### THE PURCHASE OF ARTIFICIAL MANURES.

WHILE certain artificial, or, as they are sometimes called, chemical, or light manures are, according to the leaflet recently issued by the Board of Agriculture, to some extent applied in autumn, it is in spring that farmers lay in the bulk of their supplies, and therefore it seems appropriate that a few suggestions should be offered at this season in regard to their use and economical purchase. There are three substances, and only three, that are valued in artificial manures, namely, nitrogen, phosphates, and potash. According, therefore, to the greater or less quantity of one or other of these substances the value of the manure will rise or fall. Some manures contain only one of these substances—for instance, nitrate of soda and sulphate of ammonia contain only nitrogen; superphosphate, precipitated phosphate, and basic slag contain only phosphate; and kainit, sulphate of potash, and muriate of potash contain only potash—while other manures hold two substances of value, as in the case of bones, which furnish both nitrogen and phosphates, or saltpetre (very seldom used, however, as a manure), which supplies both nitrogen and potash. Only one class of so-called artificial manure, namely, Peruvian or other similar guano, contains an important amount of all three substances.

In price lists, nitrogen is often expressed as



ammonia. The relationship between the two substances is, however, a very simple one, and need occasion no difficulty or uncertainty. 17lb. of ammonia always contain exactly 14lb. of nitrogen, or, what is the same thing from the farmer's point of view, 14lb. of nitrogen are the equivalent of 17lb. of ammonia. If, therefore, a sample of, say "Corn Manure," is offered as containing 4.5 per cent. of ammonia, this is the same as saying that it contains 3.7 per cent. of nitrogen. Sometimes, though not often, the figure is made to look more attractive by being stated as sulphate of ammonia, but this also need cause no difficulty, if it be remembered that 66lb. of this substance are equivalent to no more than 14lb. of nitrogen or 17lb. of ammonia. If, therefore, we take the above example, the figures mean one and the same thing, whether they are stated 3.7 per cent. of nitrogen, or 4.5 per cent. of ammonia, or 17.4 per cent. of sulphate of ammonia. But a manure merchant, who failed to effect many sales for a fertiliser, of ever so high-sounding a name, on a statement of 1 per cent. of nitrogen or 1.2 per cent. of ammonia, might be more successful with a certain class of buyer if he entered the nitrogen as equal to 4.7 per cent. of sulphate of ammonia, and yet the three figures all represent the same fact. Under the Fertilisers and Feeding Stuffs Act, 1893, the invoice must contain the minimum guarantee of nitrogen, stated as such.

Phosphates or phosphate of lime may also be entered in an analysis or price list in several ways, but as a rule this ingredient is either stated as above or as phosphoric acid. In an invoice, however, the statement must be made as soluble or insoluble phosphates, as the case may be. The relationship between phosphates or phosphate of lime, whether soluble or insoluble, and phosphoric acid is quite as simple as that between nitrogen and ammonia; 142lb. of phosphoric acid always form 310lb. of phosphate of lime, so that to convert the former into the latter one may multiply by 2.2, which, though giving an answer slightly above the truth, is quite accurate enough for all ordinary purposes. If, therefore, the analysis of a manure is returned as 12 per cent. of phosphoric acid, it is equivalent to saying that it contains fully 26 per cent. of phosphates. Similarly 30 per cent. of phosphates is equal to nearly 14 per cent. of phosphoric acid.

Potash usually exists in manure in the two forms of sulphate of potash and muriate or chloride of potash. It takes 94.2lb. of pure potash to form 174.2lb. of sulphate of potash, whereas the same amount of potash will form only 149.2lb. of the muriate or chloride. In the former case, therefore, to convert potash into terms of sulphate of potash, we multiply by 1.85, whereas in the latter case we multiply by 1.58. If, therefore, an analysis of, say, kainit is stated as 12.5 per cent. of potash, this is equivalent to saying that it holds over 23 per cent. of sulphate of potash; while muriate of potash guaranteed to contain 56.8 per cent. of potash is of about 90 per cent. purity. Just as a buyer may sometimes be led into purchasing a manure through its nitrogen being expressed as sulphate of ammonia, so may the contents of potash be made to look more attractive by being stated as sulphate of potash. In an invoice, however, the potash must be stated as such.

The rules for approximately converting the various terms into their equivalents may be thus summarised: To convert nitrogen into terms of ammonia multiply by 1.2; to convert nitrogen into terms of sulphate of ammonia multiply by 4.7; to convert phosphoric acid into terms of phosphates multiply by 2.2; to convert potash into terms of sulphate of potash multiply by 1.85; to convert potash into terms of muriate of potash multiply by 1.58.

Nitrogen and phosphates, and, to a less extent, potash, vary in effectiveness, and therefore in value, according to their source or origin. Nitrogen is never so effective as when in the form of nitrate of soda. It is not quite so active, and for some purposes not so valuable, when in the form of sulphate of ammonia, though under certain circumstances this somewhat slower action may be

regarded as an advantage. Nitrogen in, what is called, the organic form is in its least active condition, though here again the rapidity and effectiveness of action vary greatly. Nitrogen is in the organic form in blood meal, fish meal, bones, shoddy, &c., and yet as a source of plant food blood meal is more active than these other substances. It is claimed as an advantage for slow-acting manures that they last longer, which is true; but one applies manures not to last but to act. It is only where it is convenient to apply manure at somewhat long intervals, as in the treatment of orchards, that the more inert manures are worthy of much consideration. As regards phosphatic manures, it may be said that while soluble phosphates are all alike active, there is considerable difference in the value of insoluble phosphates. The insoluble phosphate of bone meal, for instance, is less effective, and for most purposes less valuable, than the insoluble phosphate of basic slag, precipitated phosphate, or even dissolved bones. Some of the insoluble phosphate of the last manure has once been soluble and has "reverted," and such phosphate is not much less effective than soluble phosphate. But raw bones as a manure have been longer known to British farmers than other forms of phosphate, and for this reason their price has kept relatively high.

#### THE MORE IMPORTANT MANURES.

*The purely nitrogenous manures.*—The most important are nitrate of soda and sulphate of ammonia, others in less general use being rape dust, blood meal, shoddy, &c. Other things being equal, nitrate of soda is specially suitable:—(a) For use in spring and early summer, as in the manuring of Hay, cereals, Potatoes and Mangolds; (b) for use on heavy land; (c) for use as a top-dressing; (d) for use in a dry district; (e) for use where immediate effect is desired. Speaking generally, sulphate of ammonia suits better:—(a) For use on crops that make their growth late in the season, for example, Turnips; (b) for use on light land; (c) for use on soil holding abundance of mild lime; (d) for use where it can be mixed with the soil (in contrast to top-dressing); (e) for use in a wet district. It is, however, often difficult to say for which of these two manures the conditions are most suitable; and then the question should be decided either by the relative cost of the substances, or by using a certain amount of both. If one of the organic manures can be bought at a cheap rate it may be used to some extent as an ingredient of a mixture.

Nitrogenous manures cannot be profitably employed on leguminous crops (Peas, Beans, Clover, &c.); and on a mixed crop of, say, Clover and grass, if the Clover is to be preserved against suppression, they must be used sparingly, if at all. They must also be used with caution on Barley, and especially so where a fine sample, rather than large yield, is looked for. Other crops, however, generally respond freely to the use of this class of manure. Nitrate of soda and sulphate of ammonia are apt to be lumpy, therefore the buyer should look carefully to the mechanical condition. Nothing should be applied that will not pass a half-inch riddle. Lumps larger than this will often kill plants with which they may come into contact. Nitrate of soda is generally offered on the basis of 95 per cent. of purity (= 15.6 per cent. nitrogen or 19 per cent. ammonia), while commercial sulphate of ammonia usually contains 97 per cent. of the pure article (= 20.6 per cent. nitrogen or 25 per cent. ammonia). Sulphate of ammonia is thus the more highly concentrated manure.

*The purely phosphatic manures.*—Of these superphosphate and basic slag are the most important. The former is, speaking generally, more suitable for use under the following circumstances:—(a) Where rapid effect is wanted; (b) in spring; (c) for arable land; (d) for admixture with sulphate of ammonia. Basic slag is specially suitable:—(a) For use in autumn; (b) for use on grass land; (c) for use on land holding much peat or other vegetable matter; (d) for use on land addicted to finger and toe; (e) for use in orchards; (f) for admixture with nitrate of soda. Basic slag generally leaves little to be desired as regards

mechanical condition, providing the grinding be fine enough (80 per cent. through a No. 100 sieve—that is, 100 wires per linear inch, or 10,000 apertures per square inch—should be the minimum requirement). Superphosphate is sometimes almost as dry and mealy as slag, but in other cases it is lumpy and sticky. Samples of the latter character are of reduced value, and should be avoided.

Superphosphate is of varying degrees of quality, the usual contents being 28 to 30 per cent. of soluble phosphate. Basic slag also varies in quality, the usual contents being 35 to 40 per cent. of insoluble phosphate.

Phosphatic manures are of special value in the manuring of Turnips, leguminous crops, Hay, and pasture. They are of less importance for Potatoes and Mangolds, and least of all for cereals. In the case of the last class of crops it usually happens that the plants are able to satisfy their requirements as regards phosphates, from the natural supplies in the soil, or from residues of former applications. Whether, on any particular farm, it will pay to apply a direct phosphatic dressing to a Corn crop can only be determined with certainty by means of a simple field experiment.

(To be continued.)

#### EDITOR'S TABLE.

##### A NEW PLANT FOR SHADY LAWNS. (SELAGINELLA DENTICULATA.)

I am sending you some small turfs, mostly composed of *Selaginella denticulata*, showing its adaptability for the purpose named. It grows freely in various parts of the grounds here, and has done so for many years, hence must be quite hardy. We can trace its origin to using some old potting soil when transplanting the choicer shrubs and trees. Up each side of the central walk in our conservatory are marginal boxes filled with the *Selaginella* in question. It is necessary to replant these boxes every few years so as to keep them green and fresh looking. We empty the contents on to our refuse soil heap, from which we get fresh



SELAGINELLA DENTICULATA.

soil for the purposes named. As is well known this *Selaginella* seeds freely when grown in a limited root space under glass, hence the whole heap of soil gets impregnated with the seeds as well as the small portions of the plant. In each position in which we have found it growing we can trace its origin to the way mentioned. Our soil is of a moist loamy nature, but as it overlies limestone is well drained. I am not foolish enough to suggest its use for lawns generally, but in the more shady portions of grounds its presence is sure to give some interest to many garden lovers whose tastes are catholic. It could easily be introduced in the positions I have indicated by cutting up into small pieces some straggling portions of the plant and sowing them where wanted. It would only be necessary to run a rake over the ground afterwards to let them in amongst the roots of the grass. As you may notice in the turf sent, the *Lycopodium* is outgrowing the grass, which in shady parts never grows very close.—H. J. C., *Grimston, Tadcaster*.

[A very interesting note indeed. Our correspondent sends a "turf" of it, quite mossy and most pleasant to the touch. This *Selaginella* is



well known, but those who do not know it can get some idea of it from the accompanying illustration.]

#### TUBEROUS BEGONIAS.

Messrs. Blackmore and Langdon, Tiverton Hill Nursery, Tiverton-on-Avon, Bath, have sent us a delightful gathering of tuberous Begonias, in both single and double varieties, all cut from plants growing in the open garden, and which were raised from seeds sown in January last of their own saving. Amongst the doubles are some lovely flowers: those of deep red, rich yellow, salmon pink, pink, buff-yellow, apricot, and white are particularly good; the colours are distinct, and the flowers altogether refined and pleasing. We notice one most curious bloom—it is double, and the yellow petals are marked with green. The single flowers sent are very large and handsome, of rich colouring. We have seen nothing finer than Messrs. Blackmore and Langdon's scarlet singles. Enclosed also were blooms of a

NEW BORDER CARNATION MASTER F. WALL, cut from plants which have been flowering since the end of June. This Carnation is of a very pale bluish, almost white, and is very sweetly scented. It apparently has a good constitution, and is a "non-splitter." Messrs. Blackmore and Langdon sent fruits of the new autumn-fruited

#### STRAWBERRY ST. ANTOINE DE PADOUE.

These were deliciously flavoured, of a good size and firm, making a most acceptable dish for those who care for Strawberries in September.

#### ROSE MME. JULES GROLEZ.

Mr. Goodwin, The Elms, Kidderminster, sends a boxful of flowers of this beautiful and little-known Tea Rose. The colour is a pure rose, and the scent is powerful and delicious. The stems show that the Rose is very vigorous, the leaves large, serrated, and of a rich green, and the plant one to group in the garden.

#### EXOCONUM PURGA.

Messrs. De Graaff Brothers, Leiden, Holland, write: "We have much pleasure in submitting to your notice the flowers and foliage of *Exogonum Purga*, a very rare and beautiful climbing plant from Mexico, described in the *Botanical Magazine*, vol. iii., third series, fol. 42,811, by Mr. J. H. Balfour. The plant flowered last year with us all the summer, and did not finish until the frost cut its foliage down. Flowers are produced in large numbers, and the effect of a plant growing on a wall is magnificent. We hope these flowers will reach you in good condition."

[A very strong-growing and interesting plant, with dark leaves and long, warm purple flowers. Such a plant should be made note of by all who wish to add to their climbers.]

### NURSERY GARDENS.

#### MESSRS. WEBB AND SONS, WORDSLEY.

SITUATED on the Kinver Hills the seed farms of Messrs. Webb and Sons—a short distance from Wordsley, near Stourbridge, where are the seed warehouses and glass department of this firm—form a brilliant bit of colour during the summer and autumn months, when masses of annuals are in flower. These are grown here in large quantities for the production of seed, and provide an excellent opportunity for comparing the different varieties, of noting their value and respective characteristics, such as habit of growth, profusion of flowering, time of flowering, &c., of noting the height to which certain varieties attain, and also of remarking the effect produced by such brilliantly coloured flowering plants as many of the annuals are—all of which particulars are of value to the good gardener.

It has for some years past been the custom of Messrs. Webb and Sons to invite a party of horticulturists to inspect their extensive seed farms and warehouses, and recently the annual visit was paid, Mr. Edward Webb and Mr. Stanley Webb kindly acting as guides to the party.

The Stocks made a bright display, and considering the season, which has not been to their liking, they were much better than one has generally seen this year. In most gardens this season there has been a very large percentage of singles. One of the most remarkable Stocks brought to our notice was the variety *Celestial*; the double flowers are of sky blue colour, and produced remarkably freely. This will undoubtedly prove of value in gardens where these old-fashioned flowers are made use of, for its colouring is decided and distinct, a characteristic that is always of the greatest value in the flower garden. *Vulcan*, a late variety of a very branching habit, the flowers cherry red and freely borne, was also conspicuous. The Ten-week Stocks made a grand

there were *Aurora*, blue and purple; *Oriental*, deep pink; *Sadie Burpee*, white; *Primrose Queen* (apparently the yellowest of yellow Sweet Peas); and *Countess of Lathom*, buff and pink. Stately Hollyhocks added to the general effect produced by these acres of flowers, and the Kinver air and soil apparently suit them perfectly, for they were uniformly good. Candytuft in masses of different colours, *Mignonette*, annual Lupins, and *Canterbury Bells*, all represented in great quantities and by good strains, gave further brightness and variety. The *Shirley Poppies* and *French Poppies* were very showy; amongst the latter we remarked the varieties *White Swan* and *Rosette*, both double; the last-named is a good pink. Carnations are cultivated here very largely, and amongst the enormous quantities of seedlings were blooms that had both good form and the best colours to recommend them.

Vegetables were equally well represented as the flowers. Cos and Cabbage Lettuces were remarkably fine; of the latter the best were *All the Year Round*, *Summerhill*, a very



A CORNER OF THE SEED TRIAL GROUNDS IN MESSRS. WEBB AND SONS' NURSERY AT STOURBRIDGE.

display; they were in great variety, the colours were good, and the flowers large. One variety of a primrose-yellow colour was most noticeable even amidst such a wealth of colour, and promises to prove of value.

The Nasturtiums made a beautiful show; the varieties were numerous, growing side by side in the trial beds, and of the most strikingly brilliant colours. *Meteor* (of the scarlets) and *Golden King* (of the yellows) appeared to be the best. All had come remarkably true from seed. We noticed a most unusual colour amongst them, one bed being filled with plants bearing flowers whose colour is perhaps best described as salmon rose. This is a good and novel colour amongst Nasturtiums, and when known will certainly become popular. The Sweet Peas it is almost needless to say made a rich display; we were fortunate enough to see them just about at their best, and as there were 100 varieties under trial it will be understood that they made a striking show. All the best known and proved sorts were of course to be seen. Just to take a very few of the best,

crisp and sweet Lettuce, *Wonderful*, one of the best for exhibition purposes, and another resembling *Model*, but darker in colour and more compact. A most useful little Cos Lettuce is *Wordsley Gem*; *Monstrous White*, another Cos variety, is large and of good colour. A splendid exhibition Cos Lettuce is one called *Exhibition*, and a selection from this promises to be even better. Messrs. Webb's collection of garden Peas is a most extensive one, and the trial of varieties severe. *Talisman* and *Telegraph* were yielding splendid crops, and the same also may be said of *Senator*. Besides the many named varieties grown, there are under trial a number of seedlings still unnamed of Messrs. Webb's own raising. Some of the most promising were of the following parentage: *Daisy* × *Stratagem*, *Talisman* × *Royal Standard*, Webb's Seedling × *Sharpe's Queen*, and a seedling × *Peerless* produced a splendid late Pea.

Such are a few of many interesting plants under trial for seed production in the Kinver seed farms of Messrs. Webb and Sons.



# THE GARDEN

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[OCTOBER 11, 1902

## OWN-ROOT ROSES.

CORRESPONDENT writes as follows:

**A**—"I am most anxious to grow Roses on their own roots, and shall be obliged if you will tell me how to proceed to get them and the best varieties."

To this we reply: Autumn is an excellent time to insert cuttings of the hardier groups, but the more tender Roses, such as the Tea-scented and Monthlies, root better in summer, though even these may be inserted now.

The following brief description of the ways generally adopted at this season of the year will, we hope, be useful to our correspondent and other readers of THE GARDEN.

Select a plot of ground in the open garden, not under hedges or walls as is so often advised. If the soil is heavy, trench it about 2 feet deep, incorporating at the same time plenty of drift sand or burnt garden refuse. If the soil be light, deep digging will suffice. No manure is required. What is wanted is a fairly retentive soil, yet free from stagnation.

The soil being made ready the next thing is to prepare the cuttings. These should consist of the current season's growth, well ripened, and if possible with a "heel" of the last year's wood. When we say current season's growth we mean that which was first produced this season. The second growth is quite useless, as it is not ripe. Smooth over the "heel" with a sharp knife. The cuttings may vary in length from 6 inches to 12 inches, but if possible procure them of the latter length, then one may plant them deeper, where they are more removed from outside influences. Do not remove any eyes, as frequently those at the base will throw up growths even when the tops are injured by frost.

We prefer to first prepare the soil and plant afterwards, even allowing some days to elapse between, as then the soil settles down. As the making of the cuttings proceeds they may be tied up in bundles and covered over temporarily with soil. Rather than plant the cuttings under unfavourable circumstances we should prefer to make them now; bury them entirely in some good soil in a protected part of the garden, then plant in March or April. Cuttings planted now have much to contend against, such as winter frosts, which will lift them out of the ground quite 2 inches or 2 inches. This must of necessity leave a space beneath the base of the cutting, and unless they are pushed down again most carefully

after frost has disappeared the cutting is ruined. If Bracken Fern or quantities of leaves can be obtained a thick covering of these will of course prevent this.

When planting mark out beds 3 feet wide, and plant in short rows 9 inches to 12 inches apart. The cuttings may be about 2 inches apart in the rows. Some dibble them in, but we prefer making a trench the depth of the cuttings and thus ensure the base of the latter resting on the soil. If an inch or so of good rooting material such as sand or old cocoanut fibre be placed at the bottom of this trench, this considerably assists the rooting process. When the cuttings are placed in position dig the soil up to them, tread very firmly, and then cut down another trench, and so on: It will be seen by this that the cutting is entirely buried; but this is not important unless they are fully 6 inches in the soil.

Cuttings of Tea and China Roses if made now should be inserted round the sides of 5-inch pots of sandy soil and placed in a cold frame. They will thus form a callus, and will emit roots if placed on a gentle bottom heat in spring.

As to varieties, all the smooth-wooded kinds of Hybrid Perpetual Roses root freely, and in fact almost any kind will do so *when well ripened wood is inserted*. Soft pithy wood is useless. A few varieties we have found to succeed well are Victor Verdier, Captain Christy, Pride of Waltham, Charles Lefebvre, John Hopper, Ulrich Brunner, General Jacqueminot, Baroness Rothschild, Jules Margottin, Dr. Andry, François Michelin, Mrs. John Laing, Etienne Levet, Prince C. de Rohan, Crown Prince, La France, Augustine Guinoisseau, Margaret Dickson, Olio, Paul Neyron, Helen Keller, Jeannie Dickson, Mrs. W. J. Grant, Heinrich Schultheis, &c.

The hardy ramblers, Rugosa Roses, Lord Penzance's Sweet Briars, most of the species and single Roses also root most readily. The Tea-scented, Hybrid Teas, Chinese, and Polyanthas will all grow freely from cuttings. For autumn insertion, as described, procure the cuttings if possible from pot-grown plants, otherwise only insert wood from outside or wall plants that can be obtained thoroughly ripe.

There is much to be said for own-root Roses, and several experiments we have made have resulted in plants of surprising vigour on their own roots, whereas those grafted were, in comparison, a failure. Marie van Houtte

on its own roots was as beautiful as anything we have had in a large collection of the best of the older and newer Roses this year. It is even now giving an abundance of large, finely-coloured flowers.

## KEW NOTES.

INTERESTING PLANTS IN FLOWER.

*Temperate House.*

CINCHONA OFFICINALIS, Hedychium gardnerianum, and Lindenbergia grandiflora.

*Palm House.*

Ixora coccinea varieties, Licuala grandis, Medinilla venosa, and Sterculia neocaledonica.

*Water Lily House.*

Araujia grandiflora, Clerodendron disparifolium, Dichorisandra thyrsiflora, Hedychium coronarium, and H. spicatum.

*Orchid Houses.*

Acineta Barkeri, Catasetum darwinianum, C. tabulare, Cattleya Aclandiae, C. Loddigesii var. Harrisonae, Cynorchis purpurascens, Cyrtopodium Charlesworthii, C. crossianum, C. spicerianum, C. tonsum, Dendrobium Phalaenopsis var. statterianum, Epidendrum Armstrongii, E. raniferum, Ionopsis paniculata, Miltonia candida, M. spectabilis var. moreliana, Neobenthamia gracilis, Odontoglossum andersonianum, O. aspinum, O. grande, O. madrense, Oncidium Forbesii, O. varicosum, Polystachya luteola, P. rufinula, Rodriguezia fragrans, and Stanhopea oculata.

*Range.*

Echmea fulgens, Æ. f. var. discolor, Begonia (various species and varieties), Brunfelsia americana, Buphane disticha, Caraguata lingulata, Clavija Ernsti, Dædalacanthus parvus, Erica conspicua, E. mammosa, E. spicata, Hæmanthus coccineus, Ipomæa rubro-cerulea, Mesembryanthemum blandum, Nerine atropurpurea, N. curvifolia, N. Moorei, N. sarniensis and many varieties, Pentas carnea, Pinguicula caudata, Pitcairnia karwinskiana, Spathiphyllum cannaefolium, S. floribundum, S. Minahassæ, Tillandsia duvaliana, and Tupistra grandis.

*Succulent House.*

Euphorbia splendens, Kalanchoe kewensis, Senecio subscandens, and Solandra grandiflora.

*Greenhouse.*

Acacia platyptera, Angelonia salicariaefolia, Aster cordifolius elegans, A. ericoides, &c., Caryopteris Mastacanthus, Celosia pyramidalis, Kochia scoparia, Lantana (garden varieties), Primula obconica, Salvia splendens, Tibouchina macrantha, and other things.

*Orchid House Wall and Border.*

Amaryllis Belladonna, Punica granatum var. nana, Raphiolepis indica, Schizostylis coccinea, and Watsonia marginata.

*Shrubs.*

Colletia cruciata, Coronilla emeroides, C. Emerus, Lespedeza Sieboldii, Ligustrum lucidum, and L. Quihoui.



## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

October 16.—Annual Dinner of the United Horticultural Benefit and Provident Society, Holborn Restaurant.

October 20.—Meetings of National Chrysanthemum Society's Floral and Executive Committees.

October 21.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster; Horticultural Club, 6 p.m., discussion after dinner on "Fruit Trees in Pots," opened by Mr. T. Alfred Rivers.

October 28.—Croydon Chrysanthemum Show (two days).

October 29.—Kent County Chrysanthemum Show at Lewisham (two days); Highgate Chrysanthemum Show (three days).

October 30.—Penarth Chrysanthemum Show.

October 31.—Finchley and Leyton Chrysanthemum Shows (each two days).

**Anemone-flowered Dahlias.**—These represent a strain of dwarf single Dahlias, having, instead of the usual yellow button-like centre, a cushion of quilled florets, as in the case of a quilled German Aster, but not so perfect in form. They are of continental origin, and being of dwarf, bushy growth, fairly free, and throwing their flowers well above the foliage, there are possibilities of development in them, and this has been recognised by Mr. John Green, of the Norfolk Nurseries, Dereham, who has selected some twenty or so varieties for further trial; the best will be seeded from and every effort made to develop something worthy of perpetuation. The tastes of Dahlia lovers have broadened during the past twenty-five years.—R. DEAN.

**Anemone japonica.**—Autumn-planted plants, especially of late, make but a spare growth the first season, and do not throw the fine blooms they otherwise would if fully established; then they grow tall and bloom abundantly and well. This should be borne in mind by amateurs who are sometimes led to think the plants were constitutionally weak when really it is not so. With me all the varieties do well on heavy and light ground alike, but light ground—and especially so where the position is open and sunny—favours early bloom. I cannot help expressing my regret that the type with its large deep rosy and somewhat double flowers is so little grown. I think that when well established and in vigorous growth it is one of the finest; but gardeners appear to prefer the rose-coloured hybrida and the white variety.—R. DEAN.

**Lespedeza Sieboldii.**—In places where frosts are not experienced early in autumn this plant is well worth growing, as it flowers during the end of September and October when the outdoor garden is losing its beauty. It is found both in China and Japan, and has been in cultivation for a considerable time. The root-stock is woody, and from this long shoots 3 feet to 4½ feet in length are produced, which here never survive the winter, being cut down to the ground-line by the first sharp frost. The flowers are rosy purple, and in long pendulous panicles from the upper half of each shoot. It thrives well in ordinary soil, and when planted to form a mass in front of the shrubbery is very effective, adding a touch of colour at a time when the flowering period of most shrubs is long past.—D.

**Cestrum Smithii.**—This garden form of Cestrum is quite distinct from any other member of the genus, all of which are far better known under the generic name of *Habrothamnus* than that of Cestrum. The best known of all is perhaps Cestrum (*Habrothamnus*) *elegans*, a half climber, which is particularly useful for clothing greenhouse walls, pillars, or similar places. The tubular-shaped flowers, which are borne in good-sized clusters throughout the greater part of the year, are purplish red. Besides this we have C. *Hewellii*, a garden variety in which the flowers are bright crimson; C. *aurantiacum*, with orange-coloured blossoms; and, lastly, that at the head of this note, C. *Smithii*, in which the flowers are deep

rose on the exterior, with the expanded mouth somewhat lighter in colour, and borne in the greatest profusion. It certainly affords a very pleasing variety from the others. The Cestrums belong to the order Solanaceæ, and the individual flowers are somewhat in shape in the way of *Fabiana imbricata*, whose resemblance to a Heath, both in foliage and flowers, has been before now noted in THE GARDEN, but like the Cestrums it is also a member of the Solanum family.—T.

**Blue Hydrangeas.**—I have just read the article on "Blue Hydrangeas" by Mr. Joseph Meehan, and I will give you my experience with Hydrangea Otaksa. The plant produced pink blooms, as it should, until it was three years old; then I put it in a large tub, placing quite a lot of coals—ordinary coals sifted from the stove ashes—in the bottom of the tub, when I repotted the plant in the autumn. When it flowered the past spring the blooms were blue instead of pink. I thought the plant took its colouring from the material I used for drainage. At any rate, the result created a demand for blue Hydrangeas. I intend to try the experiment again this winter.—MRS. CHARLES GREEN, in the *Florists' Exchange*.

**Andromeda mariana.**—The various evergreen Andromedas are much planted, partly because they are evergreen as well as for their racemes of white flowers. But with all their good qualities they are not more beautiful than the native deciduous one, *A. mariana*. Of beautiful growth and foliage, it bears in spring lovely white blossoms, looking like those of the Lily of the Valley, which the leaves set off beautifully. A peculiar characteristic of this *Andromeda* is that it nearly always flowers again in late autumn.—T. W.

**"Flora of the Wordsworth Country."**—Mr. T. R. Hayes, alpine plant specialist of Keswick, some time ago read a most interesting paper before the Keswick and District Horticultural Association, entitled "The Flora of the Wordsworth Country." The lecture was made additionally interesting by a very large collection of Ferns, plants, and flowers. Speaking of the old home of Wordsworth, Mr. Hayes said there the Snowdrops, Foxgloves, Primroses, Celandines, and Daisies emerge from the grassy slopes in profusion. Surrounding the memorable well are Moneyworts, Polypods, Blechnum, Parsley, Shield, and Lady Ferns revelling in the ever-ceaseless spring. There are herbs and other beautiful lakeland flowers here—White Heathers, Roses, Jasmines, Rosemary, Violets, Gowans, and Columbines.

**Cotton seed.**—A remarkable feature of the trade of the past year has been the development of traffic in cotton seed, of which 150,000 tons have been shipped from Bombay in the fifteen months ending last June, compared with only 1,800 tons in 1898-99. The whole has been sent to the United Kingdom, where a brisk demand has sprung up for this previously almost worthless bye-product of the Cotton industry for such productions as the manufacture of oil and margarine. We regard this as very satisfactory. So far back as 1897 we strongly advocated a careful consideration of Cotton seed for the valuable oil it yields, as well as for its oil-cake as a cattle food and manure.—*Indian Gardening and Planting*.

**A novel idea.**—The director of the Peradeniya Botanic Gardens, Ceylon, has put into practice a plan which appears to the *Revue Horticole* to be an excellent one. At the entrance to the gardens has been placed a notice board upon which are notified each day the most rare and interesting plants in flower. Habitual visitors thus know where to go, and avoid much loss of time. Might this plan not be adopted in other similar establishments?—B.

**Three good new dwarf bedding Lobelias.**—The remarks of your correspondent Mr. Gumbleton, under the above heading on page 210 of THE GARDEN of the 27th ult., raise the question as to what is considered an ideal Lobelia. The two varieties Newport's Model and Chapman's King Edward both possess a distinctly large eye. On the other hand, in the flower of Mrs. Clibran the eye is very small. The size of the eye naturally

affects considerably the appearance of the plant as a whole. The smaller it is the more telling the blue will be, and *vice versa*. Many prefer a flower with a small eye for this reason, but after all it is perhaps a matter that is best left to individual taste. I can quite bear out what your correspondent says as to Mrs. Clibran being the most profuse bloomer. Grown side by side with Newport's Model, as the writer saw them during this last summer, the difference in freedom of bloom was most remarkable. I understand Messrs. Clibran have been well satisfied with the reception this variety has met with since its introduction.—G. C.

**Toogood's culture of vegetables.** There is much valuable information contained in the 150 pages or so of this booklet, published by Messrs. Toogood and Son, Southampton, at the modest price of 3d. There are many useful illustrations dispersed throughout the book, which add materially to its value. A feature of Messrs. Toogood's book lies in the monthly calendars, where instructions are given as to seasonable sowings and plantings.

**Notes from Ireland.**—The absence of sunshine which has characterised the present month has seriously interfered with the usual brilliancy of our autumn tints, and has given our choicest bits of sylvan landscape a wintry and bedraggled look entirely different from the enchanting variety of golden and bronze shades usually seen in our Irish woodlands at this season. Autumn flowers—and summer flowers, too, for no one would think of denuding his beds or borders this year while a vestige of bloom remains—are with us in plenty, and seem to compensate in some measure for the lack of beauty in the deciduous foliage. At Glasnevin Gardens the display of border flowers just now is exceptionally fine. Mr. Moore's collection of Asters—comprising every known kind of sterling merit, as well as many new forms raised by himself and other eminent hybridists—are deservedly worthy of mention, and constitute in themselves a picture worth going a long journey to see. The same remarks apply to the Glasnevin collection of Tritomas, which certainly comprise a far greater number of distinct forms of this showy autumn flower than is generally supposed to be in existence. Beautiful as the Tritoma is as a bold border flower, it is perhaps in no place more effective than when seen in large clumps by the margins of lakes or through vistas in the landscape, particularly when its bright flaming spikes are seen standing out in relief against a dark background. I was particularly struck with the brilliancy of this subject recently in the charming grounds of Lord Duncannon at Bessborough, in County Kilkenny, where Mr. J. G. Weston uses it with marvellous effect in the brightening of the landscape. The Colchicums at Glasnevin are very lovely just now, and every form worth having is there. A considerable addition has been made to the rock garden within the past few months, in the recesses of which are already established hundreds of rare and beautiful alpinists, which will no doubt be duly mentioned in future notes. The hardy fernery, too, has undergone considerable enlargement, and, as many horticulturists know, now contains one of the best collections in the kingdom. In one of the greenhouses I was pleased with the bright blue of a large group of *Browallia speciosa* major. It seems curious that this free-flowering plant is not more extensively grown, as I do not know of a more lovely blue at this season for greenhouse decoration, particularly when we remember that this colour is rather scarce just at this season. As usual, a brilliant display of bloom is to be seen in the greenhouses, Begonias, scarlet Salvias, and zonals constituting the principal features. The show of Orchids is rather small, but very effective. I was much struck with the beautiful white flowers of *Habenaria Susanæ*, some of the spikes of which were fully 3 feet high. Some lovely plants of *Vanda carulea* were in evidence, as also were several charming specimens of *Miltonia moreliana*, *Oncidium dasystyle*, *Odontoglossum grande*, *Cattleya gaskelliana*, *Cattleya schofieldiana*, and various *Cælogynes* and *Cypripediums*.—T. SHAW.



**Romneya Coulteri in Sydney.**—“J. A.’s” note in THE GARDEN of August 16, page 120, reminds me of a wonderful plant I saw of this in Mr. Pitt’s (of Sydney) garden in the Blue Mountains. It not only formed a large bush, but spread over the ground by its underground shoots, so that it had to be kept in check by a free use of the spade in all directions. I asked Mr. Pitt if he could account for this rampant growth, and he suggested that its roots may have got into a cesspool which existed on the spot where it was growing, thus showing the plant is a gross feeder, and this may be a reason why one so generally sees this plant looking like an unfortunate person whose life is maintained on one meal a week.—PETER BARR, V.M.H., Cape Town, S.A.

**Saxifraga sarmontosa tricolor superba.**—A large bed of this striking and richly variegated plant is one of the features at the Norfolk Nurseries of Messrs. Hobbies and Co. (John Green) at Dereham. During summer the plants are put out on a raised bed, formed along the middle of one of the span-rooted plant houses in the nursery, and some distance from the glass. Here it grows freely and colours grandly, and even now throws out its Strawberry-like runners, and as soon as they have rooted into the soil they are taken off, potted into small pots, which are placed upon a shelf near the glass, where they are wintered, and here they grow into charming tufts for sale in the spring. It is a plant a little difficult to manage, but it is such a delightful subject that it is worth making the effort to keep it in good character. It is a plant for culture under glass, and they who succeed with it may reasonably take some credit to themselves for their success. Things easily grown are plentiful enough, but there should be enterprise enough in the breasts of some lovers of plants to induce them to make an attempt with subjects which require care, skill, and patience to secure proper development.—R. D.

**Phlox (decussata) Sylphide.**—In some catalogues this fine Phlox is known as La Sylphide. It is in very fine character in the gardens of the Royal Horticultural Society at the present time, and it well deserves the award of merit given to it by the floral committee. It is described as “a lovely pure white, of nice dwarf habit, flowers very large, excellent, free-flowering,” and this hits off the variety accurately. It is of such free growth that it sends up numerous shoots from the base, and these bloom successionally. It is one of the best white perennial Phloxes in cultivation. Some would go the length of stating that it is the best, and they would not be far wrong.—R. D.

CHRYSANTHEMUMS.

EARLY-FLOWERING CHRYSAN-  
THEMUMS AT TAMWORTH.

A MOST interesting and thoroughly practical trial of early-flowering Chrysanthemums is carried out by Mr. William Sydenham, in his gardens at Bolehall House, Tamworth, Staffordshire. Considerably over 3,000 plants in about 250 varieties have been acquired, and with these a trial of a very comprehensive character has been carried on for some time. Many sorts which were discarded by most growers years ago have in this trial come to light again, and when making comparisons it is easy to see that a certain proportion still deserve more extended culture. This is more noticeable in the case of the Pompon kinds, where such sorts as Anastasia, a pleasing rosy purple flower, is developed in profusion on a very dwarf and branching habit of growth. Little Bob, which some trade growers wrongly name Scarlet Gem, is still a valuable border plant on account of its dwarf and bushy growth and its rich deep chestnut-crimson colour, which becomes pale with age. The blooms are quite miniature. Blanche Colombe, white and free flowering; Flora, rich bright yellow; White St. Crouts,

St. Crouts, light pink; Mme. Picoul, rosy purple; Frederick Pelé, deep crimson-red, tipped gold; and many others, still prove their value for outdoor displays.

Mr. Sydenham’s idea in carrying out this extensive trial of early-flowering varieties was to test the large number of so-called early-flowering kinds. Therefore, on Saturday, the 27th ult., an invitation was given to those interested in popularising the early Chrysanthemums to be present, first, at a display of cut flowers, sent by growers from different parts of the country in competition for four silver cups; and, secondly, for the purpose of inspecting the trial of which so much has of late been heard. The importance of the event cannot be too highly estimated, as its result will be for the benefit of gardeners and gardening generally. The National Chrysanthemum Society was represented by Mr. Thomas Bevan and Mr. J. H. Whitty, chairman and vice-chairman respectively, and other members of that body. Subsequent to the luncheon—at which speeches eulogising the excellent qualities of the early-flowering Chrysanthemums were made, and on which occasion thanks were expressed to the host for his invaluable work in this direction—the guests proceeded to view the display. This trial largely exceeded the trial of early-flowering Chrysanthemums carried out by the Royal Horticultural Society at Chiswick in 1897. The plants were arranged in double rows of considerable length and in alphabetical order. By this means, with a printed list in one’s hand, it was an easy matter to make a careful inspection of the different sorts. The plants when placed in their permanent quarters in early May were planted about 3 feet apart, and the same distance allowed between the double rows of plants. The moist weather of the late summer is responsible for the taller growths of many of the plants, and on this account some were disposed not to give a proper share of attention to the taller sorts. That the Japanese varieties are the more popular nobody could deny, and evidence was not wanting of the partiality meted out to them. All the members of the Mme. Marie Masse family of Chrysanthemums were there. In addition to the pink-mauve blossoms of the parent variety, there were those of Ralph Curtis, creamy-white; Robbie Burns, salmon-cerise; Crimson Marie Masse, chestnut-crimson; and Horace Martin, the best of rich yellows in the early-flowering section. This is an ideal type of border Chrysanthemum, as the plant is bushy and branching, is not more than 2½ feet to 3 feet in height, and flowers profusely. The plants come into flower early in August, and continue blossoming until the very severe frosts bring their display to an end. An invaluable characteristic of the newer kinds is the manner in which the flowers are carried well above the dense mass of foliage. The trial, which may be regarded as a kind of informal conference, demonstrated very clearly and distinctly the superiority of the plants just alluded to over those in which the dense growths at their apex prevented the individual blooms from displaying themselves. Those with long foot-stalks made a bright picture in the landscape, whereas those without this advantage were much less effective in their display.

The less robust sorts were quickly noticed, and they are sure to decline in popular favour. There were instances in which a kind of fungoid disease—not the much-dreaded leaf-rust—appears to be inherent, and in consequence of this undesirable attribute, however pretty may be the flowers, the plants are sure to be discarded in favour of others with better constitutions, even if the blooms are not quite so refined and pleasing. The trial also proves how mixed is the stock of certain specialists. Acquiring the stocks from so many different sources has proved most conclusively the carelessness of some distributors. In some cases the names are generally recognised as synonymous, but there is no reason why Yellow L’Ami Conderchet should also be sent out under the names of Golden Drop, Golden Shower, and Golden Fleece. The trial will have the effect of placing this sport from L’Ami Conderchet under its proper descriptive name of Yellow L’Ami Conderchet. It is curious to

note how a plant may be lost to the public for a few years and subsequently come into notice under quite a different name. A pretty French novelty of the year 1895 was distributed last season under quite another, and, in this instance, an English name. Such an occurrence no doubt is accidental, but on the face of it the result represents a curious coincidence. Everyone present at the trial expressed themselves highly delighted with all they saw, and there is every reason to believe that an impetus will be given to the cultivation of the early-flowering Chrysanthemum for the hardy flower border as a result of Mr. William Sydenham’s efforts. A small committee of leading experts went carefully through the whole collection, proving the correctness of the different stocks, and also paying special attention to those which may be regarded as synonymous sorts. Glorious weather favoured the function, so that everything was carried out under pleasant conditions. The event may be regarded in the light of a red-letter day in the history of the early-flowering Chrysanthemums, and all who participated in the event were well pleased. D. B. CRANE.

NEGLECTED GARDENS.—IV.

THE ROCK GARDEN.

TO-DAY the neglected rock garden must receive our attention. Here the neglect of years will be more apparent than elsewhere probably, for of all objects an overgrown and neglected rock garden is the most pitiable. It is not that rock gardens require more attention than other portions of the garden; rather, I should say, less, and a little work in them goes a long way, but that little is very necessary.

Let me describe the appearance of a really neglected rock garden. The rockwork itself has sunk or become disreputable and in ruins, the soil has become exhausted, and all the choicer plants choked and destroyed by a few vigorous and rampant-growing subjects such as Arabis, Alyssum, and some of the commoner Saxifrages. Seen in the spring time this old rockwork would be a beautiful garden picture, for the Arabis and the Alyssum and Saxifrages flower about the same time, and a grand display they would make being in such great quantity. But that would be the beginning and the end. From the time that these plants ceased to flower the rockwork would be without any display of colour for the rest of the year. Now a well-planted rock garden should have flowering plants for at least nine months out of the twelve.

How shall we deal with this neglected rock work? If not a natural feature in the garden—and few rock gardens, alas! are that—the most effective method is to remake it entirely, carting away the old soil and replacing it by fresh. Should there be by chance a few of the choicer plants left, they must be taken up with great care, as in many cases the roots of these tiny subjects run deep, far more so than the height of the plant above ground would lead the inexperienced to imagine possible. Of course, such a drastic measure as remaking the rock garden may be unnecessary. Much will depend on the number of years that it has been allowed to run wild, but in any case it will be found advisable to renew the soil as much as possible without loosening the rockwork.

It should be remembered, either with regard to the old rockwork or in rebuilding it—if that is undertaken—that overhanging portions, picturesque as they are, should never be allowed. Plants cannot thrive under such projections, and to form a structure or put plants where a kindly Nature cannot nurture them is bad. As far as possible every portion of the rock garden should be able to benefit by dew and rainfall, the lower portions as much as the upper. Neither should the rockwork be so placed that the rain and soil are washed from it. Plants cannot flourish—barely can they live—under such conditions, and certainly cannot display their true beauty.

As to the form it shall take, due regard must be paid to the lie of the land of the garden generally, and also of the surrounding country. If



these are flat a cliff-like rock garden is scarcely so suitable as one of a flatter and wider spreading nature. If steps can be introduced either in or leading to the rock garden they add much to the artistic possibilities. In replanting, the choice positions will not be accorded to those familiar things already mentioned that so lately overran the whole. These things are too beautiful and too useful not to find a welcome place in the rock garden, but they must be kept within reasonable limits. They should be placed at the outskirts, where a large clump of them will be effective and charming, and where they can be allowed a wider range than in the choicer positions.

There are so many delightful things that we would seek to find places for, many of them of as easy culture as the familiar subjects already named. The veriest novice need not fear to introduce them. And here I would say: Let him ever be on the look out to discover any dwarf plants that yield those large and important-looking blossoms that go so far to furnish and give character to the rock garden. Such plants are too often omitted, generally, I believe, through want of being known. To a few of these I would call attention as being especially valuable from a decorative point of view. For spring-flowering there is *Aster alpinum*, a charming plant with pale mauve composite flowers, and lasting in blossom for a considerable time. For summer blooming there are those large-flowered dwarf *Campanulas*, *C. carpatica* and *C. turbinata*, both white and blue in each variety. And to go on until the frost comes are the beautiful trailing *Enothera*, which are well-nigh indispensable.

Other plants that can ill be spared from the rock garden, however small, are: *Aubrietia*, one of the most charming and hardy of spring-flowering rock plants, and to be grown either in the mauve or rose-coloured varieties (the two colours do not accord well at close quarters); *Lithospermum prostratum*, with its rich blue blossoms, which for charm of colour it is difficult to overrate. Nearly all varieties of the dwarf *Phloxes* are charming for restocking our rock garden. The best of all is known as *Vivid*, and is a variety of *setacea*. So good are these cheery-flowered plants that the only thing to regret is the fact that their flowering period does not last longer.

But it is easy enough to find many spring-flowering subjects to make beautiful the rock garden during that season. The difficulty is to maintain a display through the summer months. It is here where so many rock gardens spell failure; but, difficult though it may be to keep up a brilliant mass of colour during the hottest time of the year, it is by no means impossible. We may rely on *Lychnis haageana*, *Geranium argenteum* and *G. cinereum*, *Cerastium tomentosum*, *Silene Schafta*, and the white form of the pretty Fern-leaved *Corydalis*; *Dianthus neglectus*, one of the gayest little flowers that grow; *Dicentra formosa*, that begins to flower in spring and continues in bloom for months if the weather is not too dry; and, humble though it be, *Lysimachia Nummularia*, or, to give it the name known to thousands, *Creeping Jenny*, together with the golden-leaved variety; and, of course, there are many besides these.

There is another type of plant that always seems to me to be particularly happily placed when growing out of rockwork, especially when growing out of some steep bank or wall—I mean those plants that bear their flowers on very slender stems growing out of a thick tuft of foliage at the base—plants like the *Columbine*, *Polemonium*, and some of the *Spireas*.

If, during the first summer following the making or restocking of the rock garden, there exist bare spaces, it must be remembered that there is a wealth of hardy annuals of a dwarf character to fill the gaps. The annual *Campanulas* are quite in keeping with other subjects of the rock garden, so also are the annual *Enotheras*, and really beautiful beside and among a host of others I would name *Kaulfussia*, *Leptosiphon roseus*, *Iberis odorata*, *Phacelia campanularia*, and *P. tanacetifolia*.

F. M. WELLS.

(To be continued.)

## THE FLOWER GARDEN.

### DWARF BULBOUS IRISES.

THESE are two periods when attention may be advantageously directed to any good group of hardy plants. These are—firstly, the natural flowering season; and, secondly, that time during which the particular group may be planted. Not a few of these dainty gems are especially suitable to the amateur gardener—the lady amateur even in greater degree perhaps—and particularly all those who delight in growing a few plants without much trouble. In the following notes the predominant colour only is given. To learn something of the beauty of these flowers one has only to be reminded of the groups exhibited each year before the Royal Horticultural Society by Messrs. Wallace of Colchester, Mr. Amos Perry, and Messrs. Barr and Sons.

These Irises may be grown in many ways. They are easily managed and grown in quantity for successional flowering, while not least in the list of recommendations is that the best and most showy are to be obtained at quite a cheap rate. Let us take some of the ways in which these things may be grown. Firstly perhaps, and most naturally to the gardener's mind, is that of growing them in pots and pans, and, indeed, in these not only may the plants be well grown but readily transferred to this or that apartment when in full beauty. When thus grown use moderate-sized pots, say those of 5 inches across, for these will take about six bulbs of flowering size. The shallow pan is singularly adapted for these Irises, and a good size is 4½ inches deep and 5½ inches wide at the top. In dealing with pots and pans it is frequently urged in catalogues that these dwarf Irises are "adapted to early forcing." If by early forcing is meant the growing of these things in much heat I can only say that nothing more quickly spoils them. In a cold house or even an ordinary frame these Irises may be grown perfectly, and, indeed, where even these do not exist there is still ample scope for their full enjoyment.

Perhaps one of the most delightful of all ways of growing these plants is in the window boxes so frequently attached to town and villa residences. Many of these window boxes are glass covered, and, fitted into the window, the latter may be

opened and the beauty or fragrance of the occupants enjoyed at will. Take, for example, the

*Netted Iris* (*I. reticulata*), of the deepest and richest violet-purple, with the fragrance of the Violet, and keeping in good condition for a fortnight or even longer. This is quite a gem among the early Irises that come into flower in February. With the frame protection it is quite easy to have it in bloom in mid-February and for a month after, and certainly there is no more beautiful flower than this. To ensure a good succession in the best condition adopt the sectional window box having three inner compartments for the convenience of changing, and one or two duplicate sets also. Another charming kind that has gained much favour in the last year or two is

*I. Heldreichii*, a lovely sky blue flower, with rich deep blue falls on which are a few spots. Not only is this quite a gem among the newer additions, but it is vigorous, early flowering, and very hardy, while it will bear transplanting with impunity, even as the buds are opening. In this way it is a great gain. Yet another way of growing many of these pretty Irises is by planting a few roots in shallow earthen, or, better still, in

### ORNAMENTAL BOWLS.

These can now be obtained in several sizes, and suit the plants mentioned. Soil is not necessary, but a light, clean mixture in which to grow the plants is now sold by nurserymen and others. Grown in these bowls the flowering examples are readily transferred to any apartment, and, indeed, make pretty objects arranged on the dinner-table. Out of doors the plants are grown certainly by a few in beds, in pots, or occasionally on the rock garden. But we wonder how many of those who dwell in or near London have thought of filling their window boxes with them in place of the shrub mixture of *Euonymus*, *Veronica*, *Retinospora*, and the like. Given a set of these Irises, together with *Polyanthus*, *Chionodoxa Luciliae*, or the larger *Snowdrops*, and carpeting the surface with any of the free-growing mossy *Saxifragas*, and the owner of it possesses at once a garden of rare beauty and fragrance.

*I. bakeriana*.—One of the most exquisite of the early kinds, and in form not unlike *I. reticulata*. Upper petals sky blue, lower petals white, freely blotched with dark violet. It is sweet-scented, grows about 6 inches high, and flowers naturally in the early part of February.

*I. Danfordiae*.—This little gem rarely exceeds



THE MIXED BORDER NEAR THE RIVER (HAMPTON COURT).



3 inches high, and is golden yellow with few brown spots. Flowering late in February and after. This is one of the prettiest of the entire group as it is so distinct in colour. A bowl or panful of this always gives pleasure.

*I. Heldreichii*.—This, described above, must be mentioned here also.

*I. Histrioides*.—A charming delicate porcelain blue flower, very beautiful and tender in colour. Late February and early March; 5 inches high.

*I. persica*.—White and palest blue, the petals blotched with gold and purple, fragrant, and 4 inches high. A form of this called "Mardin" has flowers of satiny or silver-grey tone.

*I. reticulata*.—There are several forms of this Iris, varying chiefly in the size of the flowers, but all are worthy of cultivation. Colour rich deep violet-blue with golden blotches. Violet scented, flowering in the third week of February, and 9 inches high. The variety known as Major has the larger flowers.

*I. r. Krelagei* is a dwarf form with reddish purple flowers. It is 6 inches high, and quite early flowering.

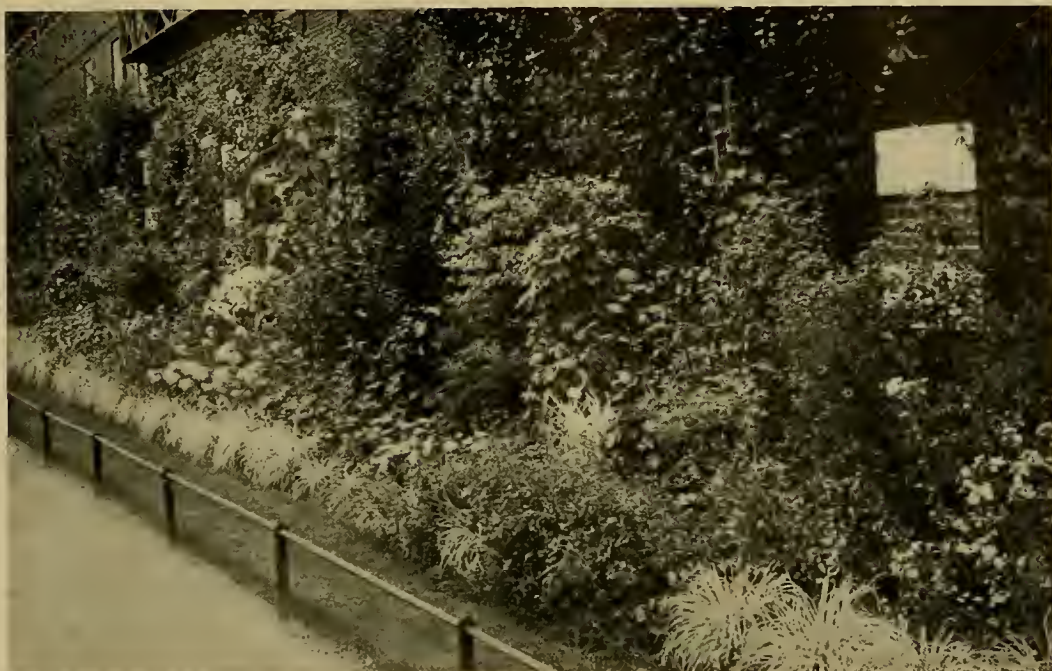
*I. Tauri* is a new addition to bulbous Irises, and forms a fitting companion to *I. Heldreichii*, which it most closely resembles in size, &c. The colour is of a more uniform tone, bright violet-purple, the nearly black falls having a few spots of white. February and March, height nearly 6 inches.

These are among the showiest and most distinct, and are preferred in the present instance because of their stature and the almost uniform season of their flowering. E. J.

#### A MIXED BORDER AT HAMPTON COURT.

THE majority of flower borders show one of three errors: Those planted by jobbing gardeners are of a stereotyped pattern; those planted by amateurs with more zeal than knowledge are wildly experimental and the flowers kill one another's beauty by injudicious proximity; those planted by wise men without taste have the plants treated as so many botanical specimens, and the labels look like miniature tombstones. But there is another kind of border that strikes the beholder with a sensation of surprised delight; such is the border at Hampton Court. No one but an artist could have thought out such a happy combination of colour; no one but a true gardener could have put each plant exactly in the right place to appear most attractive. The colours blend so harmoniously that at a distance the border seems as much a part of the old red building as the lichen on the branches does to a tree. There are no violent contrasts, although the colours range from deepest mulberry through bright crimson and scarlet to rose-pink, from deep orange to fawn and creamy white, from purple to palest blue. It may truly be called a mixed border, for hardy, greenhouse, and stove annuals and perennials grow side by side. The border is roughly divided into three by two paths, but looking sideways it seems all one, and as though its entire length were edged with a drooping greyish blue grass. In reality tufts of grass and Violas are planted alternately. In the first division the Violas have a red tinge, in the second they are pale yellow, and in the third mauve. Behind the grass and Violas comes a bank of flowers, the plants massed together, some recurring again and again, some only appearing once, the varieties of *Coreopsis* and *Montbretias* being an especial feature.

It is needless to enumerate every plant, but the following are of interest: Aster (*Callistephus*) *sinensis*, with large single mauve, pink, and white flowers; a brilliant pink Geranium named William Brown; the old-fashioned stove plant *Asclepias purasavica*, with orange flowers; the pink *Verbena Ellen Willmott*, *Hydrangea paniculata grandiflora*, in pots about a dozen together, with



BORDER FRONTING THE OLD TENNIS COURT (HAMPTON COURT).

large heads of creamy white blossom. Impatiens Sultani is beautiful, its bright cerise flowers softened by the variegated green and white foliage of dwarf Abutilons; scarlet Lilies (*Vallota purpurea*) grow next to Francoa ramosa, and above the Francoas bend graceful sprays of Gaura Lindheimeri. Two plants not often seen are here—Mina lobata, completely hiding its support with its Convolvulus-shaped leaves and drooping lemon and crimson flowers, and Nierembergia gracilis, with pretty white and purple veined flowers. Is anything now remembered of the Mexican minister and Spanish Jesuit they are respectively named after?

Behind this flowery bank the plants grow further apart in large groups of different combinations. There are Hollyhocks, Dahlias (the most noticeable being Maid of Kent, a scarlet and white flower), Cannas, Plumbago capensis, Sunflowers, Eucalyptus globulus, white and crimson Cosmos, Iresine Lindenii (grown on to be nearly as tall as the Hollyhocks), pink and white Swansonia galegifolia, Tree Abutilons, Tree Heliotropes, large bushes of Lantana hybrida (most of these have parti-coloured crimson and yellow flowers, but one named Delicatissima has violet blossoms), and Fuchsias. Many of the latter have golden foliage, one with small silver green and pink veined leaves is called Sunray, one with long salmon-coloured blossoms is named Mrs. Rundle, but the most curious is the new Fuchsia with the polyglot name Erecta von Novelty, its short pale pink flowers point upwards instead of drooping. There is Phlox decussata in many shades, some a coral red like Etna.

Here and there is a climbing Rose, a scarlet Tropaeolum, or patches of Ivy-leaved Toad-flax on the side of the wall; where it is left bare it makes a beautiful background. The top of the wall is covered with hanging creepers, such as Wistaria, and white, purple, mauve, and claret-coloured Clematis. This border is so well kept that on the day this was written (August 28) there was not a dead flower to be seen. There are other interesting flower-beds and borders in the grounds, but the one described is the most picturesque.

WINIFRED SPURLING.

#### A PLEA FOR THE ENGLISH PANSY.

THE moist, cool summer has been favourable to the development of both the English show and the fine fancy Pansies. But few comparatively in

the South now cultivate the English Pansies—the yellow grounds, white grounds, and selfs. There is a certain refinement about them of a very attractive character. There is a winsomeness about the refined white and yellow grounds which appeals to all who value the florist's quality in flowers, and having this season grown beds of the old-fashioned show as well as of the finest of the fancy varieties, I have come to the conclusion that there is much more of scope in the variations seen in the show than in the fancy type. Both the types have made a good growth and bloomed freely. There is a persistency in many of them that I miss in some of the newer Violas, which seem to go down rapidly after blooming freely for a few weeks.

The points of quality in the show Pansy may be reiterated with advantage. The outline of the corolla is nearly circular, in a perfect flower there is no serrature on the petal edges, the petals lying close and evenly one upon the other. They should be stout in substance, and of a rich glossy velvety appearance, two points gained after many years careful selection; the ground colour—whether yellow, cream, or white—clear and pure, and nearly or quite circular, so as to admit of an equal width of marginal colour or belting on the three lower petals of the flower. A Pansy, whether show or fancy, has five petals, and in the case of a yellow, cream, or white ground the two upper petals add their breadth of marginal colour to that of two of the lower ones, and thus there is a greater width of marginal colour at the top than at the sides of the flower. The belting or margin is a matter of considerable moment, that round the lower petals should be of exactly the same shade as that on the upper ones, and it should not strike into the ground colour, but be as even as possible along the inner edge. Lastly comes the blotch, a matter of great importance also. The attainment of this property occupied the fathers of floriculture many years; they had to transform the lines round the eye of the Pansy into a blotch. Latter-day florists have toiled to make the blotch dense and compact, seeking to get rid of any tendency on its part to shoot out its fine points of colour into the ground and so form a "starry" blotch. The eye of the flower should be gold or orange, solid, compact, and not running out into the blotch.

Self flowers of whatever colour should be of the same shade throughout, whether white, cream, yellow, crimson, maroon, blue, or any other shade,



and the denser and more well defined the blotch the better. How very difficult it is to get a perfect flower among seedlings is well known to those who raise them, and it is this fact which accounts for the slow increase of the named show varieties. I am bound to say that of the named varieties I cultivate they are, on the whole, of compact growth, free blooming, and continuous, and last autumn, after the fancy Pansies and Violas had ceased blooming, the show Pansies carried on the floral succession to a much later period. A selection of the best English show Pansies will be found as follows:—

Yellow grounds.—James Craik, John Kirkwood, Robert Strang, Busby Beauty, Dr. J. K. Campbell, P. C. D. Boswell, and R. M. Wenley.

White grounds.—Agnes Kay, J. McLellan, Jessie Thomson, Mrs. Brown, Mrs. M. Stewart, and Mary Stewart.

Dark selfs.—Leslie Melville, A. Lewis, Dr. Inch, and William Fulton.

White selfs.—Annie Muir, Bobby Harper, Busby White, and Mrs. Gladstone.

Primrose and cream selfs.—Annie D. Lister, Mrs. W. D. Crosbie, Allan Primrose, John Kidd, and May Stewart.

Yellow selfs.—John Henderson (extra fine), James Bell, Busby Yellow, Maggie Milne, and Mrs. John Hunter.

The show Pansy, in regard to raising new varieties and cultivating them, is essentially a northern flower, and it is always well when a collection is secured for the south to have the plants from a northern locality. If planted in the autumn the bed should be a rich loam, with some grit mixed with it, and the bed should be raised 4 inches above the ground level to allow of drainage when drenching autumn and winter rains fall. A few sprays of Fir placed on the windward side of the bed will be found a great protection from wintry and March winds. The finest blooms are obtained from well-established plants put out in autumn. If it is advisable to hold over the plants and plant out in spring it is well to pot and winter them in a cold frame, planting them out in March, and disturbing the roots as little as possible. The cultivation of Pansies in pots to secure fine exhibition blooms, and also for show as pot plants, was much followed fifty years ago, but is now practically a lost art, and yet it is a process which tests the skill of the cultivator to the utmost.

Propagation is done by means of cuttings taken in May and June from the young growths produced from the centres of the plants, and if they can be inserted in a bed of sandy soil in a cool shady spot, and a handlight be placed over them, they soon make root, or they can be pricked off in such a bed made up in a cold frame, or in pans of suitable compost, and kept shaded from the sun. Another plan is to top-dress the plants with fine soil two or three times during the summer, which assists them greatly and encourages the production of young growths, and in September lift and divide them, planting the strongest out in well-prepared beds and the weakly ones in a nursery bed to grow on. A free-growing variety will produce a good quantity of stock.

Red spider and aphides are troublesome at times, and especially in periods of drought and drying winds. The plants should be kept growing as vigorously as possible, and a favourite insecticide with some of the Scotch florists is Taddy's snuff, which they sprinkle on the affected shoots. Mildew is often very destructive to the Pansy tribe, and sulphur, in the form of a fine powder thoroughly dissolved in water and applied by means of a syringe, is found a good remedy, though some apply the powder in a dry state.

R. DEAN.

## HISTORY OF THE AMERICAN BEAUTY ROSE.

REFERRING to the answer to "H. L. Brown" on page 120 of THE GARDEN, August 16, it was my good fortune when in the United States of America to meet and chat with the man who gave the name to this Rose, and, to use his own words, "I made

a lot of money out of it." Then he went on to say: "I am by some blamed for giving a new name to an old Rose," and asked my opinion. I said that under the circumstances he was quite justified. I did the same myself when working on Peonies. If I found a real good thing without a name I gave it a provisional name, which in time often became the permanent one, as it was no uncommon thing to have the same variety under half a dozen names. Then he told me the history of the Rose. Not having my American notes, your readers must be satisfied with the facts. An old gentleman—a great rosarian who continually imported all the new European Roses—died, and his family said to my informant: "Take any of these Roses you please, and, as there were no names, I selected this particular one and discovered its great value as an indoor Rose. I exhibited it under the name American Beauty, and the trade bought it freely at a good price. I had a large stock and did well out of it." Someone sent a plant to France, and the correct name was attached, but its trade name was too well established, and the demand for the flowers under its adopted name was universal. Single specimens with a stem 5 feet to 6 feet often commanded 2dols. to 3dols. On the man's part there was no desire to claim America as the birthplace of the Rose; therefore any Americans who say the Rose was raised in the United States are ignorant of its history. It was christened in the United States. Its correct name at the time its adopted name was given—American Beauty—was unknown.

Cape Town.

PETER BARR, V.M.H.

## NOTES ON HARDY PLANTS

### ASPERULA LONGIFLORA.

**A**SPERULA LONGIFLORA, though not new, seeing that it was introduced from Hungary in 1821, seems to have fallen into neglect, but it is one of the few *Asperulas* which are most valuable for cutting. I think it is even better than *A. hexaphylla* for this purpose, and it well supplies the place of *Gypsophila paniculata*, which it anticipates in its season of flowering. Recently I have observed it more often at flower shows, and a good bunch is attractive when thus shown. As I know *Asperula longiflora* it is pure white, but the description given in a good current work of reference gives the flowers as "whitish, yellowish inside, and reddish outside," but I believe this is erroneous, unless the one in cultivation is a purer variety than the original. It also grows taller than the height of 6 inches given in the books. The flowers are long, quite pure, their graceful habit making them suitable for many purposes in arranging cut flowers. I saw a good breadth of it in an Edinburgh nursery the other day, and I was informed that it had brought in a large sum of money from the cut flowers alone. *Asperula longiflora* is a hardy perennial, and is easily increased by seeds or division. It flowers for a considerable time in summer, and in this abnormal year lasted well into September.

### GYPSOPHILA PROSTRATA.

THE dwarf *Gypsophilas* are beautiful plants for the rock garden or for the front row or edging of the herbaceous border, though the trailing habit of *G. prostrata* and *G. repens* makes them really more suitable for the first of these places. One of the best of these dwarf *Gypsophilas* is *G. prostrata*, which when in flower looks very pleasing with its green leaves and reddish or pinkish-white flowers. It is unfortunate there is in some nurseries and elsewhere confusion between *G. prostrata* and *G. repens*, so that anyone ordering one may receive the other. This is partly due to the fact that *G. prostrata* of Allioni is synonymous with *G. repens* of Linnaeus, while the true *prostrata* of Linnaeus is distinct, and is the one to which I am now referring. It likes a light soil with a little chalk or lime in it. It comes well from seeds, but

I have not been very successful with cuttings of this pretty rock plant. Its best place is really on the rockery in full sun, and in such a position that it can hang from the top of a large stone, which it will cover in summer with foliage and flowers.

### STATICE DODARTII.

THIS *Statice* is referred to as *S. auriculifolia*, but the one I have seen in several gardens under the name of *Dodartii* is taller, also differs a little in the breadth and length of the foliage. It may only be a variety of *S. auriculifolia*, but if so it is distinct enough when seen beside it to warrant its retention. These Sea Lavenders are pretty plants, and with the exception of a few species, such as *S. latifolia*, are very scarce in private gardens. Several of the species are not good perennials, and are not hardy enough for our winters, but there are still a good many, such as the one under notice, which are well worth growing. *S. Dodartii* grows fully a foot high, and has pretty lavender-blue flowers. These may be dried for winter decoration, but they also look well in the border in autumn. These Sea Lavenders are usually propagated by seeds, but it does not seem generally known that the greater number will increase readily by means of root-cuttings.

### ASTER EDNA MERCIA.

THIS Starwort, sent out by Mr. Amos Perry, of Winchmore Hill last spring, promises to be useful on account of its colour and moderate stature. We have for some time been in want of some varieties of the *Novi-Belgii* type, but with pink or red flowers. The *Novæ-Angliæ* varieties are a shade too tall for some positions, and in exposed places are difficult to keep up during autumn gales. In *Edna Mercia* we have a variety of *Novi-Belgii* approaching the colour we desire. It is not red, but may be called a warm pink or rose. This year the flowers are small, but I anticipate that they will become larger when the plants are better established. The height this season in light soil is just 3 feet, but it will likely grow a few inches more another year. *A. Edna Mercia* has been in a reserve border for trial, but I am so much pleased with it that it will be transferred to a more conspicuous position.

### LIATRIS GRAMINIFOLIA VAR. DUBIA.

I AM pleased to see that this fine *Liatris* has been given an award of merit by the Royal Horticultural Society's floral committee. It deserves all you say of it in your report in the issue of the 27th ult. It is quite hardy, and has increased at the root considerably since I got it from Baden-Baden about two years ago. The use of the *Liatris* in the garden is much to be commended, especially such as bloom so late in the season as this one. This variety of the Loose-flowered Button Snake-root, or Fine-leaved Blazing Star, by which the typical *L. graminifolia* is known in the United States, is among the best of a good but somewhat neglected group of hardy flowers. I do not suppose we are ever likely to become familiar with the *Liatris* under the name of *Lacinaria*, favoured by our American cousins, but under whatever name we may grow them they are pretty plants. A nurseryman of wide experience once told me that the *Liatris*es prefer pure sand, but one at least, the popular *L. spicata*, occurs in moist soil in its native habitats. *L. g. dubia* grows, however, in sandy soil.

### CISTUS ALGARVENSIS OR HELIANTHEMUM OCYMOIDES.

ONE would be glad if the recent mention of this lovely plant, by Mr. A. T. Goodwin, should lead to its being more cultivated, although I am at present a little uncertain about its hardness except in favoured places. I have thus not yet ventured to try it outside, but it makes a charming plant in a cold frame, where it is most beautiful with its silvery-grey foliage and pretty yellow flowers, each petal having a large spot of deep chocolate-brown at the



base. According to the "Index Kewensis" this plant should be called *Helianthemum ocyroides*, but from a garden standpoint it is better recognised as a *Cistus*. A good bush of it in the open must be a glorious thing. The flowers are very fleeting, the petals falling to the ground in the course of the afternoon, and the bush is flowerless until the next morning.

### ERYNGIUM ALPINUM.

SOME Scottish growers of hardy flowers cannot understand why this fine Sea Holly does so badly in the South, and a remark by "G. J." in the course of a delightful article recently induces me to say that there is no difficulty with *E. alpinum* in the greater part of Scotland. It is no uncommon thing to see large clumps of it in gardens, and I know of more than one nursery where it is well grown without anything but ordinary care. There is, however, still some confusion about its name, and in not a few private gardens I have seen it named *E. planum*, a small headed species, in no way equal to the fine *E. alpinum*. The cooler conditions which prevail with us in the North seem to suit it well, but the curious thing is that it is not satisfactory at Edge Hall, a garden which, to say the least of it, is not one where there is either excessive heat or drought in almost any year. I do not think that it likes a very retentive soil, any more than it likes a very dry one.

S. ARNOTT.

Carsethorn, by Dumfries, N.B.

### ALPINE ARTEMISIAS.

IF not so showy as many other Alpines, the above rank high among the most interesting of this class, being invaluable as plants for covering dry or exposed and unsightly spots on the rockery, walls, banks, or borders. The poorer and drier the soil the finer will be the beautiful silky or silvery white colour of foliage and stems, giving the whole plant a most noble and distinctly uncommon appearance. All those enumerated are easily grown, and are quite hardy if planted in a suitable spot, but if planted in rich soil they grow most rank as long as fine weather lasts, suffering and growing wretchedly during damp and sunless weather, often disappearing during winter. Both the dwarfier, as well as taller growing kinds, also do well treated as pot plants, and the sometimes tender *Artemisia arborea*, which is, by the way, one of the best of the taller growing class, is very useful for conservatory decoration, provided it has always the necessary light, is not crowded in with other plants, and is carefully watered during the winter.

*A. nitida* or *A. pedemontana*, the hardiest and one of the best and most useful of the genus; with a fairly rapid growth it produces from a woody creeping stem several branches of prostrate habit and elegant pinnate, silvery white foliage. The flowers are globular, yellow, produced in racemes. Alps of Piedmont.

*A. Mutellina*.—This species and the next form are perhaps the prettiest of this class, which the German Tyrolean give the appropriate name of *Edelraute*. It has creeping or decumbent stems, and is of slow growth, forming with its pretty numerous silvery leaves, covered with silky glistening hairs, a fine carpet; it does not lose its handsome appearance even during the dreary months of the year. The flowers are erect,

globular; the upper ones sessile, the lower ones racemose. When seen on the Alps (not by any means a common plant) at an altitude of 6,000 feet to 7,000 feet, but adapting itself readily to the climate of lower altitudes, as it is often found in the valley, it is most attractive to the eye, and it is feared that, like the Edelweiss, it will share the same fate of extinction at the hands of tourists. The flowers of this plant have a peculiar sweet scent, and are used for the flavouring of certain alcoholic drinks. Under culture it is not always a success. Planted in fissures, however, of rock, in peat and sand, and given a sunny position, it invariably thrives.

*A. Baumgartenii*.—A rare form of the former, its difference is principally in the arrangement of

In habit it resembles none of either the former or the following; it is without the glistening silky white shine, but the colour of the foliage is a most snow white, while the flowers are small and yellow. A fine plant for sunny and dry spots.

*A. Villarsii*.—This has much longer leaves than *A. vallesiaca*, but resembles that species in everything else. A native of the Pyrenees of France.

*A. Roezii* is from the Spanish Pyrenees. It has creeping stems of a decided silvery grey colour and yellowish flowers.

*A. spicata*.—A pretty plant with simple stems 4 inches to 6 inches in height. The foliage is sessile, finely cut, of a silvery grey colour, clothed with fine silky hairs, the flowers being erect, globular, yellow, one of the few requiring quite the opposite treatment of most other species, thriving in a cool, fairly moist spot on shaded rock-work. Local on the Alps, Jura, and Carpathians, but quite easily grown.

*A. granatensis*, like *A. Mutellina*, easily grown, always developing well its handsome silvery silky foliage. G. REUTHE.

### TULIPA RETROFLEXA FOR NATURALISING.

IN reference to the article in THE GARDEN on "Naturalising of Bulbs in Grass Land" I should like to draw attention to the excellence of *Tulipa retroflexa* for this purpose. It comes up year after year with no signs (as yet) of deterioration, the flowers being perhaps a trifle smaller than those in cultivated beds, but not noticeably so. It is also in other respects a most desirable flower, very bright, showing up well at quite a long distance. I have had it growing in grass now for five years.

Forres.

N. B.

## TREES & SHRUBS.

### THE ALDER.

IN view of the vast tracts of barren marshy ground, which in their present condition are yielding little or nothing to their owners in Great Britain and Ireland, the question may well be asked, Can nothing be done to reclaim such and render them both profitable and useful? It has sometimes been suggested to plant these places; at other times we are told that they are incapable of producing timber trees of a proper size to pay the expense incurred in the planting and yield a profitable return. No doubt there are a few species

of trees unsuitable for planting in marshy ground, but happily there are several others that can be planted with success, and one of the best is the common Alder. This hardy native tree not only grows, but thrives in such ground, and attains a useful size in a comparatively short time, and as its wood is keenly sought after and commands a ready sale, I can confidently recommend it to the notice of the planter. Although the Alder grows in marshy ground where few other trees can exist, yet to grow it successfully the ground should be drained as well as circumstances will allow. Some places of this description are liable to be inundated by water for a considerable time



ALDERS IN MARSHY GROUND.

flowers and in the more elegant foliage. Mountains of Transylvania; rarely seen in English gardens.

*A. glacialis*.—A high alpine, although often found very low in valleys of the Central and Southern Alps. It is of low and slow growth, the stems, scarcely attaining a height of 1 inch to 2 inches, are covered with a mass of silky, glistening silvery leaves, covered with hairs of the same colour. The flowers are golden yellow. A local but fairly common plant on the Alps of Vaud in Switzerland.

*A. nana*.—Another high alpine of very dwarf, slow growth, producing small silvery leaves without the characteristic silky and hairy covering. The flowers are yellow.

*A. vallesiaca*.—A very distinct species with more finely-cut leaves of pretty silvery white colouring.



during winter. Such land, however, I have planted successfully during March and April, and when once the Alder gets established the annual flooding with water appears not to hurt the trees in the least. This class of ground varies so much in character that the mode of drainage must be settled in detail on the spot. In cases where there is a good outlet a single drain cut at the most advantageous spot will sometimes dry a considerable area, while at other times the drains require to be cut at a distance apart of 6, 9, 12, and 18 feet, the depth of these to be regulated in a great measure by the depth of soil above the water line. The soil excavated here should be spread over the surface, which will improve the texture of the ground and add a little to its depth. Ground prepared in this way may be either planted or the seeds sown broadcast upon the surface. The Alder is so hardy that self-sown seeds soon make fine trees. When once the trees are thoroughly established they make

The inferior, useless class of ground capable of growing the Alder to a profitable size, and the facility with which it can be established at small cost, either by sowing the seeds or planting, ought to induce landed proprietors to plant these barren bog lands with it.

W.

#### HYDRANGEA PETIOLARIS.

THIS charming shrub is better known under its old name of *Schizophragma hydrangeoides*. It is also called the climbing Hydrangea, but is shown in the illustration as a spreading shrub. The tall, somewhat slender stems send out roots which cling to the wall, and the whitish or pinkish flattened flower clusters, as shown by the illustration, are produced with great freedom. It is a native of Japan and has been introduced many years, but never seems to have become popular. Such a charming group, however, as that shown in the illustration

partial shade are often very large. The flowers, which come in clusters, are pure white, and often 2 inches across. H.

#### SOUTH AFRICAN FRUIT CULTURE.

##### EXPORT AND LABOUR.

THE following accounts of the state of fruit culture and the "Labour Question" in Cape Colony are mainly compiled from the Government Reports, written by Mr. Eustace Pillans, which he was good enough to lend me for the purpose. The second article is a valuable paper by Mr. Pillans, which I have added in its entirety.

GEORGE HENSLOW.

##### THE HISTORY OF FRUIT CULTURE AT THE CAPE.

In the report of the agricultural assistant, Mr. Eustace Pillans, for 1893, he observes that the department had kept in view the necessity of introducing varieties of fruit not yet spread throughout the colony. Though it would have been better had they been introduced in the ordinary way of commerce, but it was necessary for the Government to take the initiative, so as to induce fruit growers to substitute good sorts for the prevailing "bastard seedlings."

The following were the principal items of importation for this purpose at that date: Two cases of the best Smyrna Fig cuttings, twenty varieties of Oranges and Lemons—350 examples in all—were imported from Naples. A small importation of bitter Seville Oranges was made to ensure getting an immediate supply of fresh seed, the object being to raise a better stock for grafting instead of using Lemon stocks as before for that object. A supply of pips for raising stocks for Apples, Pears, and Cherries were also secured.

On enquiry it was found that nearly all the best varieties of fruit to be found in the Covent Garden sales were already in the colony; but the orchards were not planned with the view of market production, being only, as it were, "amateur" gardens, containing a limited supply of one or two varieties each. This "old-fashioned, messing little way of orcharding," wrote Mr. Pillans, "must give way to orchards being measured

by Morgen, and not be a little back garden place behind a dwelling-house. By such means only can the orchardist hope to share in the fruit trade."

"The department enlisted the services of Mr. H. E. V. Pickstone, a skilled Californian orchardist, in order to give practical demonstration of the best methods of pruning fruit trees at such centres as should enable the greatest number of growers to attend and compare notes."

Since this was written the above experiment has proved the greatest success. Representative men have come from all parts during the past nine years, and 700,000 trees have been planted. In 1894 the Government planted 240 Pear, Apple, and Plum trees of pedigree sorts, and the best kind of stone fruits; but this was only a beginning, and far from being representative of all the fruit sorts suited to the Western climate and to the necessities of the exporter. From the small portion planted at that date large numbers of named scions



A LITTLE GROWN SHRUB: *HYDRANGEA PETIOLARIS* (*SCHIZOPHRAGMA HYDRANGEOIDES*) IN THE WOODLAND IN THE ROYAL GARDENS, KEW.

rapid progress, and in order to attain success the trees should be grown rather thickly. The planter's object should always be to produce fine clean wood, free of knots or blemish of any kind that would lessen its value in the market. I have sometimes found certain classes of home-grown timber to be rather a drug in the market at any price, but in all my experience I have never found any difficulty in selling a lot of really good Alder at a fairly remunerative price.

Although the Alder is highly suitable for planting in marshy ground, yet it is by no means confined to such, and can be grown to a profitable size on ground of ordinary texture, especially such as is of a damp character. I have grown some very fine Alder upon damp clay soil resting upon a cold clay subsoil, and as such land had failed to give a profitable return by tillage it was planted with Alder and Oak, both of which grew remarkably well, the former, however, giving by far the quicker and better return.

should do much to bring it under notice, and owing to its rambling nature it is a shrub for rock gardens and similar places, as well as in the woodland.

#### RUBUS NUTKANUS.

THE Rubus family is a most charming one, and *R. nutkanus* and *R. spectabilis* are happy among the natural vegetation of steep and stony banks. Those who wish to create pretty effects should make a note of them for planting in rough places, especially by woodland walks or in corners more or less shaded by large trees. *R. spectabilis* has flowers produced singly; they are large and of a purple-red colour. It grows vigorously, and has stout thorny shoots and large leaves, which are much like those of our native Bramble. The Nootka Bramble (see illustration) is of a different habit, being dwarfer, more bushy, but spreading freely into a handsome mass of leaf and flower. The leaves on plants in



were distributed for grafting and for budding. Under the heading of "Fruit Exports for 1894" Mr. Pillans observes that the farmers were becoming quick to recognise where their interests lay, for it was evidenced by the large extent to which certain kinds of fruit disappeared from the export shipments, and their place taken by others which were found to be better suited for transport and fetched better prices.

Mr. Pillans then refers to a serious drawback, viz., the pernicious custom whereby amateurs and outsiders took upon themselves to buy up job lots of fruit, pack them anyhow, and rush them on to the Covent Garden sales as "Cape fruit," to the utter ruin of whatever prestige our best fruits, selected and packed by the best men, may have previously gained.

Since the above was penned, at the present time, 1902, matters have improved, as it was soon found to be detrimental even to the "amateurs'" interests; but even now this has not been quite suppressed.

Mr. Pillans next calls attention to the rise of fruit growers' associations in the West; as he observes, the great thing to be avoided was the dead level of a stolid conservatism and satisfaction with the old unimproved methods practised from time immemorial. Perhaps the most noteworthy sign of improvement was the growing dissatisfaction with the average Cape seedling sorts, raised haphazard, the fruit of which, although lacking all the qualities that the buyer has a right to look for, was then still being sent to market, merely for what it would fetch. The miserable prices obtained for these inferior qualities failed to cover the rail, and he adds that it was more than probable that the improvement signalled in 1894 was due rather to a spirit of emulation, for which thanks were due to the associated meetings and the public exhibitions.

In his report for 1895 Mr. Pillans alludes to the results of the planting really good sorts of trees in the Government grounds.\* This growth was most satisfactory. Farmers, not only in Cape Colony, but in the Orange River Colony and the Transvaal, began the practice of sending unknown fruits for determination. Moreover, a strong feeling was rising against the propagation of the nameless seedlings of inferior qualities which had hitherto been so common everywhere.

\* In this climate young trees blossom and fruit in the fourth or fifth year.

He also records the fact that in 1895 there was a perceptible improvement in the stocks of fruit exhibited for sale in Cape Town; though there was not then, nor is there to-day (1902) any serious attempt to improve the

dessert forms of Grapes. Indeed, in 1895 there was no improvement in dessert fruits other than Grapes.

Unmistakable signs of improvement were to be seen in 1895 in a few private establishments. In one—that of Messrs. Malleson and Dicey at Hex River—200,000 selected orchard trees were planted, and without deriving any

In his report for 1896 Mr. Pillans mentions that additional ground on the Government property at Constantia was planted with the best kinds of Pears.

It must be borne in mind that the climatic conditions of the eastern side and of Natal are very different from the western, so that Mr. Pillans wisely called the attention of the Government to the desirability of establishing at least two typical orchards in the eastern province, namely, one for the coast level at or near East London, and one for the higher plateau, preferentially at Queen's Town. These were established, and at the present time (1902) have proved to be very successful and useful. The plan adopted was as follows: A portion of unprepared or wild ground was rented of the owner by the Government for ten years. The lessee undertook to fence, clean, trench, plant, and prune the trees. The amount was five acres. After four years the trees began to bear. The owner—who undertook to keep the orchard clean, and to allow access to all the farming public to inspect and learn from the cultivation—was entitled to the fruit, and the whole finally reverted to him. The total expense to the Government was covered by £300.

The following contributions to the *Cape Times* and *Argus* during March of this year are here inserted as bearing upon the subject of this paper:

#### VITICULTURE AT THE CAPE.

The most important agricultural pursuit in Cape Colony has, until late years, undoubtedly been viticulture for the

purpose of wine-making. We must go back to the middle of the seventeenth century for the earliest days, when we find that the Muscatel Grape was used in 1681. The first brandy was made in 1687, the total number of Vines in cultivation in the settlers' vineyards and those of the Dutch East India Company being upwards of half a million.

The Huguenot settlers gave an impetus after 1688 by introducing greater skill in the art of wine making and in increasing the varieties of wines of superior quality. As the Vines came from the South of France the Grapes were especially rich in sugar.†

NOOTKA BRAMBLE (RUBUS NUTKANUS). (From a drawing by H. G. Moon.)

assistance from the Government. As another instance, Mr. P. J. Cillee, of Wellington, devoted himself to the Prune industry. The trees were supplied by Mr. Pickstone, who revolutionised the old order of things, and established in the Colony what did not exist before, viz., a nursery capable of dealing with the prospective fruit farm demand.

Hence the Cape became famous for its sweet wines, and "Sweet Constantia" became a favourite in London. It is only recently that some of the less sweet northern French varieties

† The climatic conditions, which resemble those of the South of Spain, and also the system of short pruning, *en gobelet*, have no doubt a certain amount of influence in developing sugar.



from which light wines are made have been introduced. They were used for sherries, and required fortifying with spirit to ensure keeping.\*

In 1710 the Vines amounted to nearly 3,000,000, but in 1891 there were 78,500,000, yielding nearly 5,000,000 gallons of white, 1,500,000 gallons of red, and 1,500,000 gallons of brandy. Raisins also amounted to 2,500,000lb.

It is in the drier western province where the vineyards are, the Vines resembling small Currant bushes of English gardens, the climatic conditions being perfect. The soil is mostly decomposed granite on the slopes of the mountains, but in lower situations there is a deficiency of lime. The product of the vineyards of the Cape is said to surpass as to quantity and quality that of any other wine-producing country in the world. Europe's yields vary from 14½ to 42 hectolitres per hectare, whereas in Cape Colony Coast Department these amount to 86½, and inland to 178.

The Groot Constantia Wine Farm is a centre where everyone interested in Grape growing may see the newest processes in operation. It was bought by the Government and managed by a colonial, who has brought the vineyards to a high state of efficiency. It is a financial success, and is rapidly becoming a centre of instruction in new and improved methods of working. This wine farm consists of about 300 English acres; fifty acres are under vines, and about thirty are under general cultivation. The best varieties of European Vines are now all grafted on the phylloxera-proof American stocks. The wines made are six in number, two white, two red, and two sweet wines. The best stored wine is now valued at £1 10s. per leaguer, instead of £5 and £6, common prices in 1893.†

(To be continued.)

## THE FERN GARDEN.

### A LEMON-SCENTED FERN.

THE MOUNTAIN LASTREA (L. MONTANA SYN. OREOPTERIS).

IT is a very curious fact that this Fern, despite its extreme abundance in many parts of Great Britain, is one of the rarest of all in culture, and yet it is in many respects one of the most interesting Ferns we have, and has yielded a great range of beautiful varietal forms. In the first place, it is one of the few Ferns existent which has a really pleasant odour, strongly reminiscent of Lemons, whence its popular name of the Lemon-scented Fern. Although mainly a denizen of mountains, or, at any rate, hilly districts, it is by no means restricted to such, as we have ourselves found it in Epping Forest and also in Kent in quite lowland situations, while in our western counties it fringes the lanes in quantity. It is, however, on the hillside, bordering the slopes of mountain streams, or on rougher and drier ground, with projecting rocks interspersed, that we find it in quantity pushing up its clumps of pale yellowish green fronds in profusion. At first sight it bears some resemblance to the common Male Fern, growing as that does in shuttlecock fashion from central crowns, but, apart from its different tint and characteristic odour when passed through the hand, it differs from that species by its lanceolate bipinnate fronds having no naked stalk at the bottom. The Male Fern has a frond commencing some distance up the stalk, with longish side

divisions, imparting somewhat of a trowel shape to it, but *L. montana* begins with rounded lobes right at the base, and these gradually lengthen for two-thirds of the length, and then taper gradually to the tip.

On examining the fronds with a lens they are seen to be sprinkled with tiny yellow-stalked glands, and it is these which yield the perfume when bruised by friction. The spore-heaps are more numerous and smaller than in the Male Fern, from which, however, it is easily discriminated by the frond formation.

#### TASTES AND ANTIPATHIES.

It is generally assumed to be little amenable to pot culture, but we find that with a little attention to its particular tastes it does very well in pots, and, probably from its odour and perhaps from its flavour, is peculiarly immune from the attacks of vermin. As regards its particular tastes it differs from most Ferns in liking a pure yellow loam of a friable, crumbly nature instead of the usual compost of loam and leaf-mould. As we have seen, it is by preference a hillside and not a wood Fern, and this implies good drainage. Its antipathies are lime or hard water containing lime and drought at the roots. Dry air it can stand, as its natural habitats imply, but drought at the root is fatal. If, therefore, we plant it out of doors we must give it an open, loamy station in a position where it gets plenty of light, but is not subject to drought, while in pots, given the proper soil and good drainage, it will hold its own well. It is thoroughly deciduous, the fronds dying quite down to the ground in the autumn even under glass, hence a good plan is to bury the pots outside in the soil for the winter, mulching them lightly with the old fronds or a little leafy *débris*. As regards propagation, it is a particularly difficult Fern to raise from spores, few growers succeeding, a singular fact when we consider the multitude of self-sown seedlings which we may find in the chinks and crevices of its native rocky habitats.

#### A VALUABLE HINT.

We have, however, discovered that the old clumps of roots, or rather root-stocks, if kept close and damp have a peculiar faculty of developing young plants from bulbils in a remarkably short time. On two occasions we have found very fine varieties—*L. m. cristata gracile* Drury and *L. m. plumosa* Drury. The first was a huge clump, and when we divided it up for distribution—it had thirty-three crowns—we threw the mass of old and apparently dead root-stock into the corner of a Todea frame, where in a few weeks it became literally green with a grass-like crowd of typical youngsters. The second find, in August last, only afforded a small piece of such unpromising material, but as we write (at the end of September) fine plants have appeared from pimple-like buds developed on the caudex. The abundance of the common or normal form renders such trouble needless, but it is otherwise with the splendid varieties, crested or tasselled, plumose or finely-cut and foliose, dwarfed and congested, twisted and curled which have turned up to reward the Fern hunter, and which, as we have said, are difficult to raise from the spore, hence this hint is valuable though quite accidentally suggested.

#### VARIETIES.

It is remarkable that in the first half of the last century, although *L. montana* was well known as a species and was presumably subjected to the same search for varieties, the quest was so badly rewarded that it gained the character of being one of the most constant Ferns we have. Then, however, Mr. W. M. Barnes and others in the Lake District, where it is peculiarly plentiful, discovered one or two good things, and, encouraged by their success, prosecuted the search so assiduously and so successfully that eventually it turned out to be one of the most sportive, several scores of very distinct and fine forms being added to our collections as wild finds, while in the skilled hands of Mr. Barnes a few improved crested types were acquired in addition. This being so, we strongly counsel greater attention being given to this species, since there are many situations on gentle-

men's estates and in private gardens where it would thrive out of doors or indoors, and where a collection of good types would undoubtedly "pay its rent" in the shape of interesting attractiveness.

CHAS. T. DRURY, F.L.S., V.M.H.

## GARDENING OF THE WEEK.

### THE FRUIT GARDEN.

#### PEACHES AND NECTARINES.

NOTWITHSTANDING that these fruits were later than usual this season, all but the very latest are now gathered. The nets may be removed, and all shoots cut away that are of no further use. This will the better expose next year's bearing shoots to the sun and air, and by lightly passing a Birch broom over the leaves as soon as they are matured they will readily fall, and the wood will be benefited by full exposure. This is a suitable time to renovate defective borders and also to lift or prune roots that are causing mischief through having penetrated too deeply into the borders. Instructions were given in a former calendar for carrying out this work. The planting season is close at hand, and planting should be carried out as soon as the trees have lost their leaves, or, in the case of those that only have to be moved from one position to another in the same garden, as soon as the leaves begin to fall. The importance when planting trees of spreading the roots in layers near the surface of the border, making the compost firm about them, loosely securing the trees to the wall or trellis so that they settle with the recently disturbed soil, and lightly mulching with short litter should not be overlooked. Outdoor Peach and Nectarine culture deserves more attention than it receives, and we find in low, moist situations that it can be more successfully followed than can Apricot culture.

#### GATHERING FRUIT.

The gathering of Apples and Pears will now call for frequent attention if each variety is, as it should be in order to have it in its best condition, gathered at the correct time. The time to gather can be easily ascertained by gently lifting the fruit to a horizontal position, when the stalk will readily sever from the tree if it is in a fit state to gather. For storing purposes the fruit should be gathered when it is perfectly dry, and unsound specimens be separated from the bulk and first used. Every necessary care should be taken not to bruise the fruit, and for this reason the baskets should be lined with wood wool or some similar material. Late varieties of both Apples and Pears should be allowed to hang upon the trees as long as possible, otherwise their value will be greatly impaired through shrivelling. The Pear Flemish Beauty, however, must be forcibly removed from the tree in order to obtain its best quality.

#### STORING FRUIT.

Much depends upon the fruit room and the system of its management as to how fruit keeps. It should be carefully ventilated until the sweating has passed, when it should be closed, although air must be admitted on occasions. It should also at all times be kept dark, cool, and of an equable temperature.

*The Hendre Gardens, Monmouth.*

### INDOOR GARDEN.

#### THE PLANT STOVE.

MANY plants in this structure will benefit now by a thorough overhauling and cleansing. Where labour cannot be spared for sponging I have found the following mixture a check for mealy bug, and it will also impart a glossy appearance to the leaves:—Boil 1lb. of soft soap for about ten minutes in one gallon of soft water. Use half a pint of this mixture in four gallons of water, adding 8ozs. of petroleum. Lay the plants on their sides and thoroughly syringe the foliage. Sufficient fire heat will be required in order to maintain a night temperature of 60° to 65° and a day maximum of 70° to 75°, allowing the temperature to rise with

\* Taken from Wallace's "Farming Industries of Cape Colony," 1896.

† The four best prices in the present year (1902) are as follows: Hermitage (a red "claret"), £1 6s.; Cabernet Sauvignon (a red "Burgundy"); Sauvignon Blanc (a "Hock"), £1 6s.; Sweet Constantia (a liqueur), £1 10s.



sun heat. Allamandas, Bougainvilleas, &c., passing out of flower must have less water, as they require a rest to enable them to start early next season.

#### CROTONS.

From plants having served their purpose for house decoration cuttings should be struck. The varieties with broad leathery foliage are the best to withstand a prolonged stay indoors. The narrow leaved varieties are never so satisfactory, especially in winter. The pots should be full of roots, and the plants be prepared for the change by gradual transfer through lower temperatures in order to withstand the rough treatment they may have to endure.

#### DRACÆNAS

should be treated somewhat similarly. Brilliantly coloured varieties have generally a weaker constitution than the green-leaved sorts. Sucker growths of

#### PANDANUS VEITCHI

should be taken off when they can be obtained and potted up in an open porous compost of sandy

by making rough shelters such as skeleton frames either with timber or turf on a southern aspect, and every available foot of space will be well occupied in this way. Protecting material, especially dressed canvas covers, ward off severe frost, and practically keep the crops safe against an ordinary winter, and after filling the cold frames, which in many places are none too plentiful, choose fine weather, and prick out fairly thick such as late sown Endive, Lettuce, Parsley, Red and White Cabbage, Cauliflower, and the like. Lift fully-grown plants of Endive and Lettuce into good balls of soil when quite dry and place in cold frames, cool orchard houses, or even open sheds, when they may be blanched as required.

Continue to earth up and blanch Celery, Leeks, and Cardoons during the middle part of the day when dry. Spare no pains to break up the soil finely, and place it firmly round the growth of the first-named, as by so doing the keeping qualities will be much more certain. Make sure before doing so that the roots are in a thoroughly moist condition, as good Celery cannot possibly be expected when allowed to suffer for the want of water. Early Celery in many places has run to seed this season, and in some places, I am sorry to say, to an alarming extent, even when every possible attention has been given to it. Generally speaking this is caused through a check of some kind, and no doubt in this case it was owing to the ungenial weather which we experienced after the plants were put out into the trenches.

#### TOMATOES.

Plants which have been treated for bearing during the winter should now be strong and sturdy and well established in their fruiting pots. These will have been brought forward in cool houses, and should now be placed in heat; this should be done gradually, getting them acclimated to their new position as gradually as possible, and endeavour to keep the growth short jointed, and the foliage and the atmosphere of the

stored in quite cold places; also Vegetable Marrows and Globe Artichokes, which will much prolong the season. Sow frequently small salads in boxes under glass.

E. BECKETT.  
*Aldenham House Gardens, Elstree.*

## NEW AND RARE PLANTS.

### A NEW LILY OF THE VALLEY.

CONVALLARIA MAJALIS PROLIFICANS.\*

WE have written more than once about this new *Convallaria*, and now offer our readers an illustration of it with the following description. The illustration shows a pot of the *Convallaria*, and the plants are numbered. No. 1 is a common spike flowering with bunches; Nos. 2 and 3 are young small plants flowering commonly without bunches, but the few well formed flowers are usually of a size not hitherto seen, and there are twenty flowers on one stem. On a flower-stalk of No. 2, which stands behind No. 4, nineteen flowers can be seen. No. 3 is rather stronger; in the place of the lowest flower a small cluster of flowers is already formed. No. 4 is a weak plant, but is flowering with two flower-stalks, whereon are bunches of flowers. No. 5 is a plant with two flower-stalks flowering as before without leaves, which may often be seen; the leaves are in this case growing very slowly. In Nos. 4 and 5, both bunch-flowering, the flowers are not yet open. Of No. 4 the flower-stems may be seen with difficulty. The flowers, which are milky white, have a very strong and delicious perfume. The illustration gives a general view of this new but remarkable *Convallaria*, which, when more cultivated and improved, will very probably produce still larger flowers and heavier flower-stalks, and in 1903 the *Convallaria majalis prolificans* Vrengdenhill Perfection may be at least twice as strong as now. This *Convallaria* is well suited for decorations; the flower-clusters of strong plants can be separated from the flower-stalks and used separately for decorative work, bouquets, &c. One flower-stalk of such a strong plant is in itself a bouquet, and where now three or four sprays of the common Lily of the Valley are used for a button-hole, one flower-stalk of this New Perfection will in future be quite enough.

For the present this illustration suffices, because flowering crowns are not yet strong enough to make good pictures, and because this variety will be still further improved in each successive year, and therefore a complete collection of pictures of it will be made in 1903 and 1904 and offered for inspection. The flowers are already, considering the circumstances, unusually fine. This New Perfection, *Convallaria majalis prolificans*, Mr. J. Vrengdenhill considers to be a useful market plant. —J. VRENGDENHILL.

## RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for October has portraits of the following plants and flowers, mostly bloomed at Kew:—

*Streptocarpus Mahoni*.—Native of British Central Africa. This is a beautiful and free-blooming species allied to *S. Saundersii*, and producing bunches of bright blue flowers somewhat resembling those of a large *Lobelia*.

*Anemone cernua*.—Native of Manchuria and Japan. This is a curious species, with nodding reddish brown flowers, introduced to cultivation by Herr Max Leichtlin, of Baden-Baden.

*Masdevallia schroederiana*.—Native of Peru. This is also known as *M. fulvescens*. This is a singular and rather highly-coloured variety of this curious family of cool house Orchids.

\* Translated from the *Weekly Floral Paper for Flower Bulbs, Cultures, &c.*, of June 14, 1901, Haarlem, Holland.



A NEW LILY OF THE VALLEY (*CONVALLARIA MAJALIS PROLIFICANS*).  
(Half natural size.)

loam and charcoal, and plunged in a propagating frame with a good bottom heat, where they will soon root.

#### SUMMER-FLOWERING CHRYSANTHEMUMS.

Plants that have finished flowering should be cut down and placed in a cool light pit or frame to encourage them to grow away freely and make a clean strong sturdy growth. Weak drawn-up cuttings seldom produce good plants or blooms. Late decorative varieties, specially grown for giving a display at Christmas and onwards, should be arranged in a light cool house or pit, and given air whenever the weather is favourable.

JOHN FLEMING.

*Wexham Park Gardens, Slough.*

## THE KITCHEN GARDEN.

EVERY preparation must now be made to ensure the safety of the more tender kitchen garden crops against severe weather. Very much may be done towards this end, even without the aid of glass,

houses should be kept as dry as possible, and air more or less should be given every day, and to ensure a free set the flowers should be fertilised daily. Water at the roots should be given only when the plants absolutely require it, and this at all times during the winter months should be warmed to the temperature of the house. Plants which are in full bearing should also have the temperature increased, and the fruit as soon as it shows signs of colouring should be cut and placed in a warm temperature to finish ripening. Any plants which still have fruit on them outside should now be pulled up, and unless the fruit is colouring it is a capital plan to take off the foliage and hang up the plants head downwards in the warmest place available, under glass for preference. The fruit will derive much benefit from the nourishment stored up in the growth, and the quality will be much better than if cut and coloured direct from the plant.

With any signs of frost see that the heads of Cauliflowers turning in are well protected. All French and Runner Beans should be picked and



*Gladiolus Mackinderi*.—Native of British East Africa. A very bright-coloured and beautiful variety with medium-sized flowers. Seed was sent to Kew from Mount Renia in 1900, which bloomed in a greenhouse in 1901.

*Iris Leichlini*.—Native of Bokhara. A curious and beautiful variety closely allied to *I. Eulefeldi*, with brown and rosy purple flowers.

The first number of the *Revue Horticole* for October contains a portrait of the beautiful tailed Butterwort *Pinguicula caudata*, with large rose-coloured flowers. I think, however, that I have seen them of a much deeper and finer shade of rose than here portrayed. It is not hardy in this country, requiring the protection of a greenhouse. The October number of the *Revue de l'Horticulture Belge* has a good double plate of an ornamental tender Fern named *Davallia bullata*.

W. E. GUMBLETON.

## APPLE ROYAL LATE COOKING.

THIS Apple, of which we give an illustration, was raised at the Royal Gardens, Windsor, many years ago, and was only known locally until exhibited at one of the Royal Horticultural Society's meetings. Its fruits were then recognised by the fruit committee, who gave it an award of merit. Since it has gained much in popular favour, and is now admitted to be amongst the best of our late winter culinary Apples. It has also been well spoken of as a dessert variety late in the season when dessert Apples are scarce. It is much superior in flavour during March and April to any of the imported Apples then sold as dessert varieties. The fruit is large and greenish yellow in colour. The flesh is tender, juicy, and sweet. The tree is hardy, strong, and sturdy in growth, and bears freely as an orchard or a garden tree. It is one of the latest varieties, keeping well until Apples come again, and when better known will become a great favourite.

## THE NURSERY GARDEN.

### DAHLIAS AND HARDY PLANTS AT MESSRS. CHEAL'S NURSERY AT CRAWLEY, SUSSEX.

A VISIT to this excellent nursery cannot fail to be a pleasure and an advantage to all who value good garden flowers and shrubs. My visit was a little late to see the Dahlias at their best, for lying, as the nursery does, on the level land of the weald of Sussex, the recent frosts, that had spared us dwellers on the sandy hills, finding us dry and therefore less vulnerable, had destroyed much of the foliage and bloom of Messrs. Cheal's Dahlias, though enough was left to show the fine quality and extent of the collection.

Among the Cactus Dahlias, some already well known on the show tables were conspicuous for quality and freedom. The sharp pinch of frost had served one useful purpose, that of proving comparative hardiness, and some of the best kinds for colour and quality proved to be among the hardiest. Mrs. Mawley, of clear lemon colour, was one of the best; other beautiful flowers were Mrs. McKergow, buff-apricot; Floradora, blood-crimson; Regulus, crimson; Countess of Lonsdale, copper-salmon; and Alfred Vasey, salmon-apricot, a very free bloomer. Mrs. A. Perkins, lemon and white, is a very pretty flower.

Among the few to be seen of the older "decorative" type, with the flatter petals, the fine blood-red Mrs. Montefiore was a grand flower, and Orange Fire King, a brilliant sport from the well-known Fire King, showed a flower of the best use for garden decoration. I was sorry to hear that this fine class of Dahlia is going out of favour, being displaced (at least for a time) by the newer form of the Cactus section with the narrower, twisted florets.

I much regretted that the time between certain trains was so short that only a very



APPLE ROYAL LATE COOKING. (Two-thirds natural size.)

hasty glance could be taken at the fine collection of hardy plants, but I was glad to see by a few blooms still remaining on Hollyhocks that the strain grown is an excellent one for garden use.

It is not of the florist's type, in which the individual flowers are so tightly packed with petals that they are like round balls, and that the play of light within and among the petals, which gives richness of colour, is lost, but these have the distinct guard petal which adds much to the beauty of the flower, and the rather looser inner petals with the glowing colour gained by their more free disposition.

There is a fine strain in these grounds of the useful mahogany-striped autumn-blooming *Helenium*, known as *Helenium grandicephalum striatum*. The dark striping is more conspicuous and of better colour than in the usual variety. The value of *Chrysocoma Linosyris* (now classed among *Asters*) as a showy autumn plant was well proved by a handsome patch. The hardy Fuchsias were in beauty.

They are delightful plants of latest autumn that should not be neglected by those who have gardens anywhere south of London. On the South Coast and the best climates of the British Isles they are hardy, and form large bushes, growing from old-established wood; but elsewhere they do excellently treated as herbaceous plants, cut down after flowering and growing afresh every year from the root. The four most useful are *Riccartoni*, *gracilis*, *globosa*, and *exoniensis*.

Time, unfortunately, did not allow of an examination of the shrub and hardy fruit quarters for which this nursery has so high a repute.

G. J.

## ARTIFICIAL MANURES IN THE GARDEN.—III.

IF the hints given in the preceding articles have not missed their mark two things will have been made clear—(1) that the economical use of artificial manures means the application of the particular substances called for by the crop grown and needed by the soil in which it is growing; and (2) that the use of special manures—that is to say, manures specially mixed for certain crops—may often be exceedingly expensive, though it is certainly very frequently a great convenience. On this point a good deal more might be said, but the illustration given in the issue of June 7, which is a typical one, ought to be sufficient to prove the statement. The manure referred to is expensive, even if the soil and crop imperatively call for the ingredients supplied, while if any of them are unnecessary their use is, of course, unprofitable.

The next point of interest is the method of using these manures. It has been pointed out that the use of the expensive nitrogenous manures is not necessary in the case of plants belonging to the order *leguminosæ*. This curious fact is of comparatively recent discovery, though the practical fact that Clover (a leguminous crop) always left the land on which it was grown in good condition has long been known to farmers. Except in the early stages of growth then, when the power of absorbing nitrogen from the air has not yet been acquired by the plants, there is no benefit to be derived from the use of sulphate of ammonia or nitrate of soda. But in all other cases these manures are of great value in stimulating growth, and they fully merit the high esteem in which they are held by gardeners and farmers. In the case of such crops as Onions, Leeks, Cabbages, and Greens generally, and any crop in which vigorous growth of the leaf or "body" of the plant is desired, nitro-

genous manures have a most beneficial effect, and the result of an application is often so marked as to seem marvellous. The proper time to apply it is when the plant is in active growth or just before this stage is reached. There is no loss in giving sulphate of ammonia a little earlier, but nitrate is extremely soluble, and if a period of wet weather followed on the application, and the plants were not in such a state of growth as to be able to take it up, it is probable that a large portion would be washed away out of the reach of the roots and so be absolutely lost to the cultivators. The results following small applications of these manures to greenhouse plants and flowers generally are so well known that nothing need be said on this head. Phosphatic manures are more specially necessary for root crops, such as Turnips, Carrots, Beet, and Parsnips, but there are few vegetables that are not the better for an application when the supply in the soil is not ample. Of potash manure we have already spoken; if the claims of its advocates are well founded the views formerly held concerning it will have to undergo considerable modification, for experiments tend to show that even on soils where, theoretically, there are ample supplies of this ingredient, a dressing of kainit or muriate of potash has the effect of increasing the crop considerably. It is certainly much called for in the case of Potatoes, and, like phosphates, is beneficially applied to Peas. The time to apply it is early in the year, or even in the autumn previous. There is no advantage in giving very heavy doses of artificial manures. In the case of flowers there is grave danger of injury from the excessive use of nitrogenous dressings, and care is necessary—small doses given frequently are infinitely superior to a large quantity applied at one time. Further, even when no injury results, the manure given in excess would, as pointed out earlier, be washed away and lost. In the case of phosphatic and potassic manures the same thing does not hold good. They would still remain in the soil and be



available for another crop, but there is no reason why the money spent for them should not be kept in the pocket until they are needed. Gardeners do not measure by the acre, but as a general rule it may be stated that the dressings of nitrate of soda or sulphate of ammonia vary from 1cwt. to 3cwt.; of superphosphate, 3cwt. to 5cwt.; guano, 1cwt. to 3cwt.; kainit, 2cwt. to 3cwt.; and muriate of potash, 1cwt. to 2cwt. For convenience sake, when dealing with small areas, a dressing of 1½cwt. may be considered as amounting to 1lb. to the square rod (5½ yards by 5½ yards).

W. Y. N.

## ORCHIDS.

### ODONTOGLOSSUM CRISPUM VAR. LUCIANI.

**A** CUT spike with four flowers of this grand variety was shown by Mr. A. Warburton, Vine House, Hasleden, Lancaster, at the Royal Horticultural Society's meeting on June 10. It received a first-class certificate in March, 1897, when shown by Mr. Linden, but since then the flowers have improved in size and substance. The ground colour is white, with large blotches of claret-purple, the colour showing dark purple through the back of the flower. In point of value it is the highest priced *Odontoglossum* yet sold. One plant recently changed hands for the record price of 700 guineas.

### NOTES FROM THE DELL.

(THE RESIDENCE OF BARON  
SCHRÖDER.)

A MORE interesting and charming garden than that at The Dell, the residence of Baron Sir J. H. W. Schröder, Bart., C.V.O., it would be difficult to find. The collection of Orchids is of world-wide fame. No other contains so many rare or valuable kinds in such abundance; in fact, many Orchids are at The Dell which importers can never hope to obtain again. In the Orchid houses plants of more than ordinary interest, apart from their intrinsic value, are in every department. In the warm *Dendrobium* house the original varieties of *Dendrobium Phalenopsis schroederianum*, first sent home by Forbes, are now in bloom. Since Baron Schröder first acquired these plants through Mr. Lee's sale they have flowered annually, and curiously enough, in spite of the immense numbers imported, on the rediscovery of this fine Orchid by Sander, of St. Albans, and subsequent consignments, these plants are among the finest varieties known, rivalling and even surpassing the best forms in colour, size, and substance. Forbes originally is supposed to have sent but two plants, which found a place in the Kew collection, but by some means Mr. Lee, of Leatherhead, acquired a plant or plants, and on the sale of that gentleman's stock they were acquired as stated.

In another house are some grandly flowered examples of *Dendrobium formosum giganteum*, the largest and finest variety of the true type. The huge shining snow-white almond-scented blossoms are most effective, particularly when the plants are disposed as at The Dell. Many

of them are simply attached to pieces of wood surfaced with sphagnum.

One of the large *Cattleya* houses—a lofty structure—contains a specially fine assortment of *Cattleyas*, *Lælias*, and *Lælio-Cattleyas*. At this season comparatively few are open, but from the numerous sheaths on the *Trianes* and *labiatus*, &c., there will soon be a good display. A magnificent specimen of *Sobralia macrantha alba* also forms a feature in this house, as does a large and handsome plant of *Cattleya bicolor*, well deserving a varietal name, as it is probably the best variety in cultivation, with substantial buff-orange sepals and petals and a broad massive lip of crimson amethyst.

A narrow lean-to house leading to the cool houses contains a representative selection of Vandaceous plants, superbly grown, with leafy stems. Among them can be noticed the best varieties of *Vanda suavis* and *V. tricolor*. It is a pity that this class of Orchid is so unaccountably neglected by many Orchid lovers. They are easily grown, are constantly in flower, and the glossy foliage renders them attractive at all seasons of the year.

Want of space precludes a detailed description of this incomparable collection. Rare forms can be seen on all sides intermixed with splendid specimens of *Oncidium macranthum*, *loxense*, *serratum*, *superbiens*, &c., *Odontoglossums* *Edwardii*, *ramosissimum*, and the unique *O. liliflorum*.

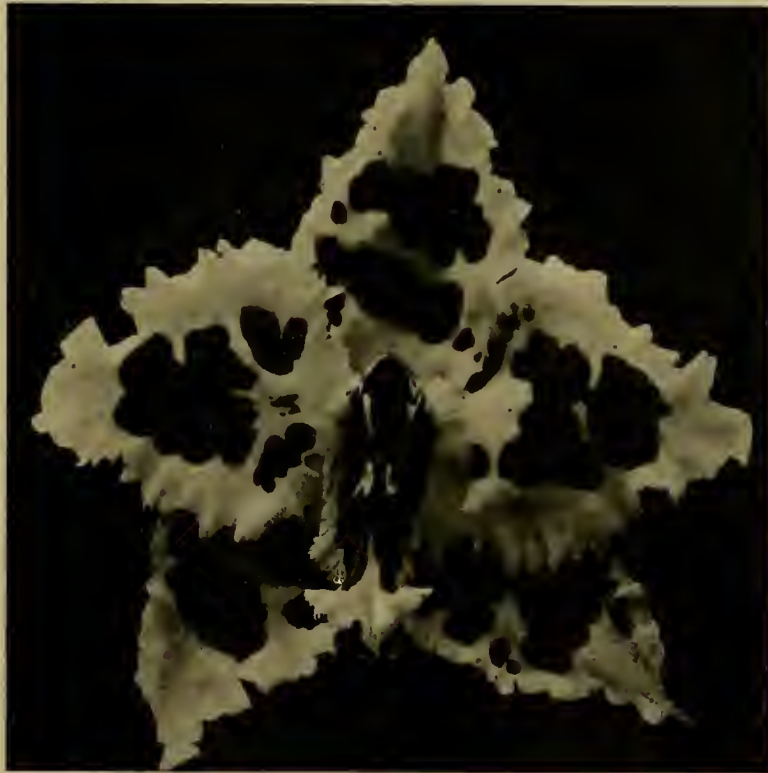
with huge leaves like an elephant's ears, the bullate surfaces of hoar silver broken by divisions of olive green; *New Beauty*, dark velvet green, shaded with crimson and zoned with silvery white; *Silver Mammoth*, with huge shapely leaves of shining silver white softly relieved with rose; *Ibis Rose*, best described as rose-pink in colour, but glistening in certain lights; *Helix*, with curiously-shaped attractive foliage, the basal lobes circling round and round in a corkscrew-like form; *Silver Grey*, olive green, with an intermediate zone of silver-grey, the ground colour powdered with silver; *Comtesse de Tellerson*, with foliage in varying shades of green, from a soft emerald tint to deep olive. A house devoted to *Nepenthes* cannot be passed over, on account of the size and rich colouring of the pitchers and the number carried by each plant. Fine varieties of *Nepenthes mixta*, *mastersiana*, *Chelsoni*, *Curtisii*, *rafflesiana*, *northiana*, &c., are particularly conspicuous. It must not be imagined that the glass houses alone receive attention at The Dell.

Thoroughness in every gardening detail is an essential at this charming place, and though the acreage of the outdoor grounds cannot be called large, so effectively are they planted that their extent appears to be more considerable than it really is. Each shrub and tree is a perfect specimen of its kind, and so placed as to display in full its particular characteristics and beauty.

*Rhododendrons* are in profusion. A huge bank of them encircles a great part of the garden, with the choicest varieties as isolated specimens. The well-kept lawns are planted with specimen *Coniferae*, including grand pieces of *Cedrus Deodara* and *C. atlantica*, clothed from bottom to top. Two splendidly grown trees of *C. Deodara alba spica* are prominent by reason of their size and great beauty. Cedars of Lebanon were also noticed, and a superb plant of the Japanese Umbrella Pine (*Sciadopitys verticillata*). A rather sheltered position has been given it. Superb *Hollies* are also a speciality at The Dell—a more uniform and beautiful set of plants it would be hard to find. The choicest variegated forms, silver and golden, are admirably foiled by the green kinds with which they are intermixed.

The rock and alpine gardens are full of the choicest hardy plants appropriate for this fascinating branch of gardening. This department, as all others, is beautifully kept. Unfortunately, in brief notes such as these, it is impossible to do even bare justice to this excellent garden, so admirably managed by Mr. H. Ballantine, the kind and genial head gardener. Situated on the borders of Berkshire, it is placed amid some of the most beautiful natural scenery in England. One aspect calling for especial mention overlooks Windsor Forest. The undulating ground forms a natural dell, and is thickly covered with Bracken, Oaks, Hawthorns, Hollies, &c. ARGUTUS.

**When to plant the Larch.**—Old-World foresters tell us that the Larch is one of the easiest trees to transplant of the many they handle, and such is the experience of planters here if the trees be set at the right time, which is early in autumn or very early in spring. If deferred in spring until the buds burst planting is very risky. In my own case, had I some of the trees to plant, I would do the work towards the close of this month—September—planting carefully. Pruning is a great help, and of no loss to the tree, which grows the bushier for it.—*Florists' Exchange* (New York).



FLOWER OF THE FAMOUS ODONTOGLOSSUM CRISPUM VAR. LUCIANI.  
(Natural size.)

Among the *crispums*, *O. c. apiatum* was pointed out, a nice healthy plant in the best condition; also *crispum*, The Dell variety, *c. schroederianum*, &c., together with *Pescatorei schroederianum* and *P. veitchianum*.

A marked feature in the cool houses, and one which might be followed with advantage in every similar place, is the presence of numerous *Begonias* of the *Rex* type planted beneath the stages and along the edges of the paths. That both position and temperature suits them is obvious from their vigour and luxuriance, and their brilliant colours add immensely to the attractiveness of the houses. Mention in particular may be made of *Begonia Tresco Abbey*,



## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

## A WHITE CAMPANULA IN PAVEMENT.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am sending you a photograph of a plant of the lovely *Campanula pyramidalis alba*, which is growing in the garden of a friend of mine (Mr. Freestone, the postmaster of the village here) who is a most enthusiastic amateur gardener. What makes this plant so interesting in its present position is the fact that



A BELL-FLOWER (*CAMPANULA PYRAMIDALIS ALBA*) SEEDLING IN PAVEMENT.

it is growing on a close pavement of blue brick as will be seen from the photograph, and is self raised. Undoubtedly the seed was carried (from parent plants growing in the garden) either by the wind or by birds, and found a lodgment in the joints of the brickwork and germinated there, which took place during the summer of last year. Beyond taking care that it should not be eradicated as a weed, the only attention the plant received has been to secure the growths to the pillar of brickwork between the two doors, and to throw down a little extra water when the pavement has been washed down, which latter falls sharply away from the house. It has formed a very pretty picture growing in so conspicuous a position,

and I have seen many poorer specimens of this beautiful plant grown in pots for conservatory decoration.

F. J. CLARK.

Wistow Gardens, Leicester.

## BULBS AND OTHER PLANTS FROM ABROAD.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The editorial leader on "Bulb Growing in England" in *THE GARDEN* of the 20th ult. serves to direct one's attention to the large sums we pay the foreigner for different plants, many of which might be equally well grown in this country, whilst on the other hand there are some that try as we might would not prove a remunerative crop. For instance, the value of the Bermuda-grown *Lilium Harrisii* is owing to the fact that the bulbs are ripened and reach this country when the plants out of doors here are still green. English summers, too, would not suit the *Tuberose*, which comes to us in large quantities from the United States, and in a much lesser degree from South Africa. The last-named as a rule reach here in early autumn, while the American ones seldom arrive before Christmas. Again, *Lilium auratum* is commercially a failure, both in England and in Holland, hence we are obliged to draw our supplies from its native country, Japan, from whence large quantities of many other subjects are received.

From Japan are sent, besides *Lilium auratum* just mentioned and its varieties, huge quantities of *L. speciosum* and *L. longiflorum*, and in a lesser degree *L. tigrinum*, *L. Batemanniae*, *L. elegans* in variety, *L. Alexandre*, and others, as well as Tree *Pæonies*, all grafted on a stock most prolific of suckers; Fern Balls made up of the creeping rhizomes of *Davallia bullata*; dwarf trees of sorts just now much in vogue; the various forms of *Acer palmatum*; and *Iris Kampferi*, or rather of this last great numbers used to be sent till a couple of years ago, since when, owing probably to the poor prices realised when sold by auction, very few have made their appearance. Holland, at one time regarded as the sole bulb-producing country, still sends vast numbers to England, though the prospects of our growing many of them in years to come is certainly hopeful. From Holland we receive many *Liliums* (not *auratum*), *Hyacinths*, *Tulips*, *Narcissi*, *Crocus*, *Gladioli*, and a host of other bulbs, shrubs grown especially for forcing purposes, clumps of *Lily of the Valley*, *Dielytras*, *Spireas*, and so on. Belgium contributes vast numbers of Indian *Azaleas*, hardy flowering shrubs, particularly hardy *Azaleas*, sundry bulbs, and *Palms* for decorative purposes. Germany sends *Lily of the Valley* eyes for early flowering, miscellaneous plants in general, particularly large quantities of small trees and shrubs, and above all the bulk of many kinds of seeds, for seed growing is an important industry there.

France also adds to the list, for it supplies great numbers of young trees and shrubs, *Gladioli* bulbs, *Freesias* from the southern part of the country, Roman *Hyacinths* from much the same region, as well as from parts of Italy, while the large quantities of *Lilium candidum* which are on the market here in August and September also come from France. The United States of America nearly monopolise the *Tuberose* business, while they also send a good many *Gladioli* bulbs. Bermuda has for long made a feature of *Lilium Harrisii*, and while many other things have been tried nothing half so valuable from a commercial point of view has cropped up. *Freesias* grown there attain a very large size, but do not flower in a satisfactory manner, but the double yellow *Oxalis*, known as the Bermuda Buttercup, does well. South Africa supplies *Tuberose*s, *Lilium longiflorum*, apparently an increasing industry, and various bulbs, most of which are collected in a native state, not cultivated. The West Indies often contributes barrels of *Amayllis equestris* and *Pancratium* bulbs, but as the call for these is so limited the business in them is not likely to develop to any great extent. Brazil sends *Caladiums* and various *Palm* seeds, while the huge quantities of *Kentia* seeds are usually shipped from Australian ports. Smyrna supplies different

bulbs, particularly *Chionodoxas*, *Galanthus Elwesii*, and to a lesser extent other subjects in the same way. From the Black Sea region we occasionally get a large importation of collected bulbs of *Lilium szovitzianum*, but these are apparently much scarcer than they were a few years ago. This by no means aims at being a complete list of the different subjects that we obtain from over the seas, but rather to call attention to the fact that most parts of the world contribute thereto, even when *Orchids*, which are drawn from many sources, are omitted. We learn the gratifying fact that bulb growing in this country is greatly on the increase, and hope it will gradually develop into an important British industry.

H. P.

## ENGLISH BULB GROWING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—When at Aldenham recently I had an opportunity of seeing examples of English-raised *Hyacinths*, and certainly the specimens bear out all that is said on page 189 of *THE GARDEN* as to the future of home-grown bulbs. Never have I seen bulbs of such weight for the size as those shown me by Mr. Beckett, and as firmness and individual weight of each bulb are most important in the production of quality in *Hyacinth* blooms, there seems no reason why in a few years other growers should not take up the raising of home-grown bulbs. It is interesting to see the growth from the start of the tiny bulblet to the after expansion into full flowering examples, and is an illustration of what may still further be done in developing this industry, providing suitable soil is at command. The bulbs in question were raised at Terrington St. Clement, in Norfolk, by Mr. W. J. Balderson, a former employé at Aldenham, but now a successful cultivator of English-grown bulbs.

E. MOLYNEUX.

## SEASIDE HORTICULTURE.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Among the many attractions of seaside resorts that have been provided for the pleasure of visitors during recent years there are few that have made so much progress as the laying out of lawns and flower gardens along the promenades facing the sea. Many years have elapsed since my first visit to Boulogne-sur-Mer, and though I have frequently passed through the town, mostly in the small hours of the morning, I have not made a prolonged stay in this old-fashioned watering-place for more than twenty years until last month. The *Etablissement des Bains* is no longer known by that name, but is now called *Le Casino*, and its grounds are of course laid out in a manner conducive to the pleasure of such as visit it during the daytime. But the chief improvement to be noticed at Boulogne is unquestionably the excellent way in which the sea front between the *Boulevard St. Beurre* and the sands has been converted into an attractive promenade. Two long rows of green turf with a wide central gravel path, broken at intervals by side paths, have been formed, and on these are arranged beds of flowers of various shapes and sizes. At regular intervals these beds have between them vases on pedestals filled with flowers, mostly zonal *Pelargoniums*. An octagonal band stand occupies a position about midway down the promenade, with a gravel walk around it, allowing a free circulation of a large number of visitors who throng to hear the music. The full width of the promenade may be put at about 130 feet, and numerous garden seats are provided for the weary. Round the band stand is a border freely and effectually planted, the back row consisting of single *Petunias* of various colours trained to sticks about 3 feet high, next is a row of double salmon-coloured zonals, then one of pale pink zonals, and the front row of blue *Lobelia*.

Quite an imposing effect is obtained by several large raised oval beds, in the middle of which are white *Marguerites* and foliage plants, surrounded with bright scarlet zonals and an edging of silver-leaved zonals. Here and there variety is obtained by planting some of the beds with *Ageratum*, others



with Verbenas, Petunias, &c. In one case I noticed a very effective contrast in a bed being planted with a pale pink single zonal, edged with French Marigolds.

The gravel paths between the grass lawns on which these beds are cut are of good width, and the crowd of visitors that thronged the promenade in preference to plodding along the sands show how much such attractions are appreciated, and that such improvements help considerably to popularise those seaside places both at home and abroad where the municipal authorities undertake them.

C. H. P.

## EDITOR'S TABLE.

### ANTIRRHINUMS.

Miss Ethel Case sends flowers of seedling Antirrhinums of pretty colourings. We hope our correspondent will continue to experiment and get good selfs, tall and graceful.

### NEW ASTERS.

Mr. Perry sends from Winchmore Hill three beautiful varieties of perennial Aster, or Michaelmas Daisy, flowers which give warm colouring to the autumn garden. One is named A. Amellus Perry's Favourite. The flower is about as large as a crown piece, and a soft bright purple, with rich orange centre on disc. It is one of the largest we have seen of the Asters, and we welcome its bright and clear colouring. A. Perry's Red is very distinct, entirely unlike the variety just described. It is evidently very free-flowering, and the flowers, though small, are rich in colour—a deep telling amethyst. Another pretty variety sent is Edna Mercia, a small, neat flower, bright yellow in the centre and light amethyst florets. It makes a bright little bush in the garden.

### THE BLACK BRYONY.

A correspondent sends this beautiful native plant, botanically called *Tamus communis*. It has shining green Smilax-like leaves, and a profusion of berries; but many readers will know this wilding, and the illustration will help those who do not to recognise it in the hedgerow.

### LOBELIA SYPHILITICA HYBRIDS.

Mr. E. Ladhams, the Shirley Nurseries, Shirley, writes: "I thought you might like to know a little about our race of *L. syphilitica* hybrids, flowers of which I enclose. I may say that the flowers are more effective on the plants in the open than when cut. About six years ago Mr. B. Ladhams crossed *L. cardinalis* with the hardy *L. syphilitica*, the result being a batch of purple forms intermixed with many apparently of the type. The next cross was from one with rich purplish crimson flowers, itself a hybrid, back on the type (*syphilitica*), the best again being worked on this species. As a result we now have to the third and fourth cross a very mixed lot, a few reverting almost to the types of both parents, whilst others take intermediate and what were probably latent colours. The best of these are now selected permanently and those of sufficient merit are being named. The reason for employing *L. syphilitica* so persistently was, of course, to get the hardy nature of this species, which I am glad to say has been strongly infused into not a few of the hybrids. There are many others besides these herewith sent, but some are cut up for propagating purposes, whilst one or two are so very fine that we cannot spare a bloom, being desirous of getting as much seed as possible from them. They are at best very shy seeders."

[We are much interested in Mr. Ladhams' work in this direction. The *Lobelia cardinalis* is a beautiful garden flower which we should have thought others would have tried to cross to get a

race of flowers of varied and good colouring. The hybrids sent were delightful, a rich assortment of colours, all pure and distinct, and most welcome in the autumn garden. One, a deep blue, was conspicuous among scarlet, pale pink, warm maroon, and other shades. Such hybrids are quite worth a distinct name, and we hope Mr. Ladhams will continue his interesting work.]

### SOME GOOD COLCHICUMS.

Colchicums, often called "autumn Crocus," are amongst our most beautiful flowers now in bloom. Strange to say, they are not often seen outside the garden of the amateur, who makes hardy plants a speciality. I have visited large gardens where hardy plants have been grown extensively, but have failed to see a single Colchicum. They will succeed in almost any position or soil, though they will succeed better if the natural surroundings are somewhat like that of their natural habitat, at least in the matter of soil. I do not think a heavy clayey soil is altogether suitable, but I have seen our native *C. autumnale* happy in a wet, boggy meadow. I have also seen it thriving on its banks. At the present season they look extremely well planted in the grass, which has been kept cut during the summer and now

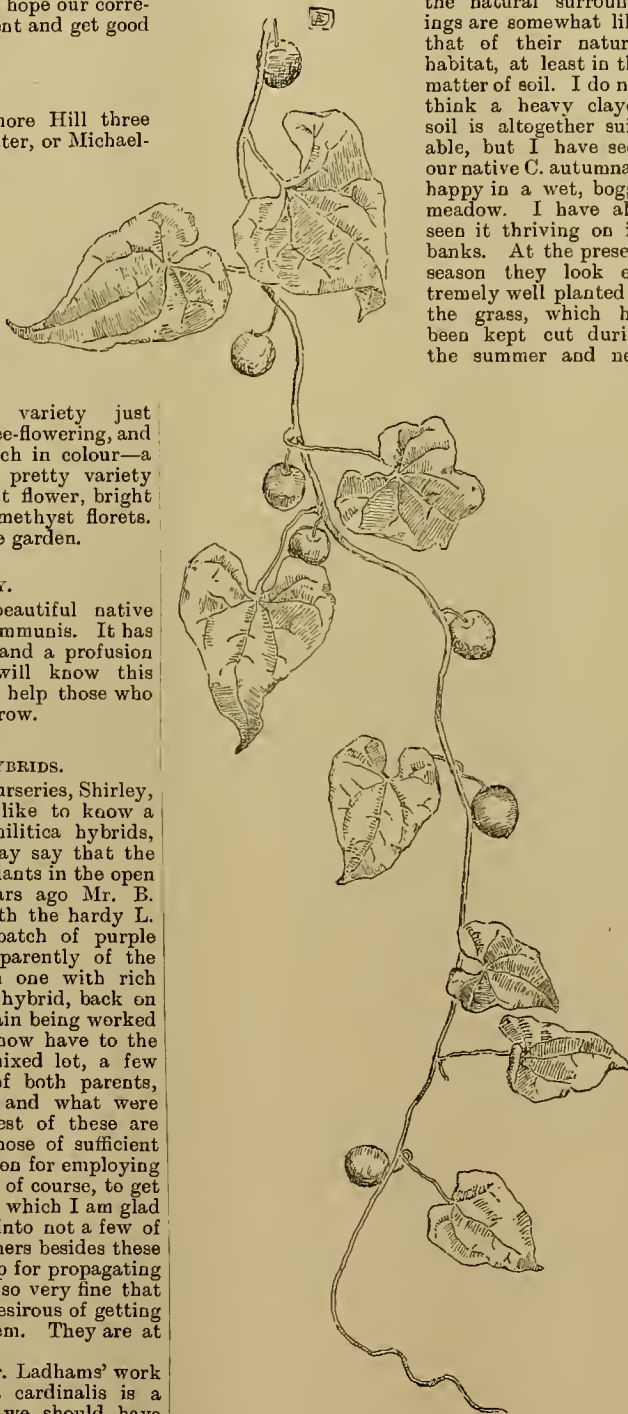
allowed to grow a few inches. In the mixed hardy border or cosy nooks they also look well, as they also do in broad pockets in the rock garden. There is some uncertainty with many gardeners as to the correct time for planting Colchicums. I have known them taken up immediately after flowering. This must be a mistake. I think the proper season is after they have completed their growth, and just as the foliage is turning yellow. This applies to all the family, whether autumn, winter, or spring species of Crocus. If they are taken up and thoroughly harvested and again planted during August I believe they will always do well. I am aware that some good growers do this annually, but I fail to see the need for this except where the soil is bad. In such cases it is undoubtedly necessary. A small collection planted some four years ago is now a mass of flower, and many thousands of tiny seedlings come up each spring. They have become somewhat crowded, and will be lifted at the proper season. These autumn Colchicums are followed by Croci, which flower far into winter, and the one astonishing thing about these Croci is their hardiness; 12° or 14° of frost will cause the flowers to lay flat on the soil, but immediately the sun shines they are up and fully expanded, and none the worse for the night's ordeal. These Croci and Colchicums always look well in the wild garden, especially so in the neighbourhood of Birch trees. When planted in broad patches under and near the silver stems of this beautiful tree they have a fine effect.—T. ARNOLD, *The Gardens, Cirencester House*.

[With this came a small but delightful gathering of Colchicum flowers, and we hope our correspondent's note will draw attention to a beautiful but neglected group of autumn flowers. They must be rightly placed to get the full charm of the clear, soft colouring, not planted in patches in a mixed border.]

## BOOKS.

**Villa Gardens.**\*—There must be thousands of persons in the suburbs of the metropolis that move year by year into new houses with what the builder is pleased to call a garden attached, but which in reality is more often than not a piece of rough ground without form and empty. During the past four years in my neighbourhood alone there must have been no fewer than 2,000 new houses erected, every one of which has a piece of garden ground belonging to it of greater or lesser extent, according to the house. Almost the first consideration that occupies the mind of a newcomer is how to lay out his garden, and twice during the time mentioned I have had to face the problem. Most persons seem to do the work themselves, and with little or no originality as a result. A few whose time is perhaps more valuable and whose purse is longer employ a jobbing gardener, and the result is about the same. The gardens are painfully monotonous, and exhibit a total absence of ingenuity both in the laying out and in the planting. Less than twelve months ago on taking possession of a new house with a piece of ground of unusual size for a suburban villa I thought it wise to consult some of our well-known authors in order to get an idea of what to do for the best. I had heard of Kemp's well known "How to Lay Out a Garden," but being out of print could not come across a second-hand copy. I have several hundred gardening books in my library, but in not one case is there such a thing as a design for laying out a garden great or small. At this juncture a friend lent me Mr. Robinson's "English Flower Garden," in which there are several plans, but these are mostly of large gardens in the country. However, I got from that work a hint which helped me considerably in my difficulty; but it is an expensive book, and in many cases would answer little or no purpose, especially in small gardens of from 50 feet to 100 feet in length, such as the suburban amateur usually gets allotted to him. Quite recently a

\* "Villa Gardens." By W. S. Rogers.



THE BLACK BRYONY (SLIGHT REDUCTION).



new book has come under my notice, and I hasten to call attention to it, as it most certainly fills an important gap in garden literature, and if known must prove to be of service to many owners of small gardens, who have to consider the question of laying them out either with or without professional aid. It is entitled "Villa Gardens: How to Plan and How to Plant Them," by W. S. Rogers. This is a nicely printed inexpensive book with illustrations, the most important being a series of nine examples of plans for small gardens, each accompanied by a perspective sketch, which considerably helps the amateur to form an idea of the general effect when completed. In addition to this part, which in my opinion renders the book unique, and which more than justifies the appearance of a new gardening book, there are chapters on what to plant, on garden walks, rock gardens, the summer-house, and various garden accessories, such as seats, arches, &c. To anyone moving into a newly-built house in the suburbs such a book has only to be known to be very highly appreciated.—C. HARMAN PAYNE.

## SOCIETIES.

### NATIONAL CHRYSANTHEMUM SOCIETY.

THIS society's early autumn exhibition of Chrysanthemums was held in the Royal Aquarium on Tuesday, Wednesday, and Thursday last, and a good general display resulted. Dahlias were extensively shown in the non-competitive exhibits. Some excellent bunches of Chrysanthemums were shown, but the large single blooms were not remarkable.

Group of Chrysanthemums and foliaged plants: First, Mr. W. Howe, gardener to Lady Tate, Park Hill, Streatham Common, who showed good blooms; the Crotons, Dracenas, Palms, &c., added greatly to its appearance; second, Mr. R. C. Pulling, Monkham's Nurseries, Woodford.

Twenty-four Japanese blooms: First, Mr. J. Brooks, gardener to W. J. Newman, Esq., Totteridge Park, Herts, with very good blooms. Especially well shown were Mrs. T. W. Pockett, L. Mountford, Lady Crawshaw, &c.; second, Mr. G. Impey, The Lodge Gardens, Abbot's Road, New Barnet, with fresh blooms; third, Mr. Norman Davis, Framfield, Sussex.

Twelve Japanese blooms: First, Mr. H. Perkins, Greenlands Gardens, Henley-on-Thames. A magnificent bloom of Sir William Acland was included in this exhibit; second, Mr. James Brookes, with good blooms; third, Mr. M. Rayment, North Oxendon Gardens, Romford.

Six Japanese blooms, distinct: First, Mr. R. C. Pulling, Monkham's Nurseries, Woodford, Mrs. Greenfield and Mme. Henry being the best; a good second, Mr. J. Childs, The Priory Gardens, Totteridge; third, Mr. S. Foster, Tenderden Hall Gardens, Hendon.

Six incurved blooms: There was only one entry, the first prize going to Mr. James Agate, Brockhampton Nurseries, Havant.

Mr. Eric F. Such, Maidenhead, was first for twelve bunches of early-flowering Pompons, showing some good flowers; Mr. T. L. Turk, Southwood House Gardens, Highgate, was second; and Mr. Charles Brown, Langley House Gardens, Abbot's Langley, was third.

Mr. D. B. Crane, 4, Woodview Terrace, Highgate, N., was first for six bunches of early-flowering Pompons with first-rate bunches; Mr. Eric F. Such, Maidenhead, was second; and Mr. Charles Maron third.

Two vases of twelve blooms of large flowering varieties: First, Mr. James Brookes with a handsome exhibit; second, Mr. J. Kirkwood, Grass Park House Gardens, Finchley; third, Mr. Norman Davis, Framfield.

Vase of six Japanese blooms, yellow: First, Mr. R. C. Pulling, Monkham's Nurseries, Woodford, with good Mrs. T. W. Pockett; second, Mr. H. Perkins, The Gardens, Greenlands; third, Mr. F. Bush.

Vase of six Japanese blooms, white: First, Mr. J. Impey, The Lodge Gardens, New Barnet, with grand blooms of Mme. G. Henry; second, Mr. R. C. Pulling, Monkham's Nurseries, Woodford; third, Mr. James Brookes, Totteridge Park Gardens, Herts.

Vase of Japanese blooms, other than white or yellow: First, Mr. R. C. Pulling, Monkham's Nurseries, Woodford, with Lily Mountford; second, Mr. James Brookes; third, Mr. H. Parr, Trent Park Gardens, New Barnet.

### EARLY-FLOWERING VARIETIES.

Twelve bunches early-flowering varieties: First, Mr. D. B. Crane, Highgate, with some excellent bunches of flowers; second, Mr. E. F. Such, Maidenhead; third, Mr. H. Parr, Trent Park Gardens.

One vase early yellow: First, Mr. D. B. Crane; second, Mr. E. F. Such; third, Mr. A. Taylor, East Finchley.

One vase early-flowering salmon, pink, or rose: First, Mr. F. Bush; second, Mr. A. Taylor; third, Mr. James Brookes.

Vase of early-flowering Pompons: First, Mr. D. B. Crane, Highgate; second, Mr. T. L. Turk, Southwood House Gardens, Highgate; third, Mr. S. Foster, Hendon.

Vase of early white Chrysanthemums: First, Mr. D. B. Crane with a good exhibit; second, Mr. F. Bush, Rose Hill Gardens, Totteridge; third, Mr. F. Gilbert, Kendal House Gardens, Blackheath Park, S.E.

Vase of early crimson Chrysanthemums: First, Mr. Eric F. Such, Maidenhead; second, Mr. D. B. Crane, Highgate; third, Mr. J. Kirkwood, Grass Park House Gardens, Finchley.

Vase of early-flowering Chrysanthemums, any other sort: First, Mr. J. Kirkwood; second, Mr. E. F. Such; third, Mr. D. B. Crane.

### DECORATIVE EXHIBITS.

Hand basket of garden flowers: First, Mr. Norman Davis, Framfield, Sussex, with a pretty exhibit; second, Miss Cole, Feltham; third, Mr. M. V. Seale, Sevenoaks.

Hand basket of autumn foliage and berries: First, Miss Cole; a good second, Mr. M. V. Seale, Sevenoaks; third, Mrs. A. Taylor, East Finchley.

Hand basket of Chrysanthemums: First, Mr. M. V. Seale, Sevenoaks; second, Mr. Norman Davis, Framfield; third, Miss Cole, Feltham.

Vase of Chrysanthemums: First, Mr. A. Robertson, Mitford House Gardens, St. John's Wood, with a good exhibit; second, Mr. F. G. Oliver, 97, Tollington Park, N.; third, Mr. T. L. Turk.

### AMATEURS.

Twelve Japanese blooms, distinct: First, Mr. A. Robertson, Mitford House Gardens, St. John's Wood, who showed some very good blooms; second, Mr. J. Childs; third, Mr. M. Rayment.

Six Japanese blooms: First, Mr. A. Robertson, Australia being excellent; second, Mr. W. J. Farrow, Park Hill House Gardens, Clapham; third, Mr. J. Childs.

Twelve Japanese blooms, not less than six varieties: First, Mr. E. Brown, Jun., 3, New Alma Road, Southampton, with blooms lacking depth; second, Mr. Thomas Smith, Cobbold Road, Leytonstone; third, Mr. Martin Silsbury, Providence, Shanklin.

Six Japanese blooms, distinct: First, Mr. J. Bone, 60, Calverley Grove, Hornsey Rise.

Twelve bunches early-flowering Pompons: First, Mr. T. L. Turk, Southwood House Gardens, Highgate; second, Mr. F. Gilbert, Blackheath Park.

Six bunches early-flowering varieties, distinct: First, Mr. D. B. Crane; second, Mr. F. Bush; third, Mr. C. J. Webber, Muswell Hill.

### AWARDS.

Gold medals.—Messrs. Hobbies, Limited, H. J. Jones, Hugh Low and Co., H. Berwick, Henry Cannell and Sons, and W. J. Godfrey.

Silver-gilt medals.—Messrs. W. Cutbush and Son, S. Spooner and Sons, Colwill, R. Forster, and E. F. Such.

Silver medals.—Messrs. H. Deverill, John Peed and Sons, and Shawyer.

First-class certificates.—Mr. Perkins, Greenlands, for Mary Perkins (Japanese); and Mr. Shawyer, Cranford, for Black Prince and Nellie Blake (Japanese).

### NON-COMPETITIVE EXHIBITS.

Messrs. Hobbies, Limited, Dereham, had an imposing bank of Dahlias in many excellent varieties. Roses were also included in this exhibit, which was well and effectively arranged.

Mr. H. Berwick, Sidmouth Nurseries, Devon, displayed a table of hardy fruit that was much praised. The fruits, considering the season, were very good.

Messrs. H. Cannell and Sons, Swanley, Kent, showed a group of brilliantly coloured Cannas.

Messrs. Cutbush and Son, Highgate, N., showed a very good lot of Dahlias in Cactus, Pompon, and single varieties, which were arranged with much taste.

Mr. H. J. Jones, Ryecroft Nursery, Lewisham, exhibited Chrysanthemums in pots bearing good blooms, bunches of early-flowering sorts, zonal Pelargoniums, &c.

Mr. W. J. Godfrey, Exmouth, Devon, had an excellent miscellaneous exhibit of Chrysanthemum blooms, Carnation Pride of Exmouth, Michaelmas Daisies, &c.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, showed hardy fruit in variety, and also a miscellaneous collection of plants in flower, Begonias, Liliums, &c.

The new early-flowering yellow Chrysanthemum Horace Martin was well shown by Mr. W. E. Wallace, The Nurseries, Eaton Bray, Dunstable.

Mr. J. B. Colville, nurseryman, Sidmouth, Devon, exhibited hardy fruit in variety and of very good quality also.

Messrs. G. Spooner and Sons, Hounslow Nurseries, Middlesex, showed a table of hardy fruit that contained many good dishes, of Apples particularly.

Messrs. Peed and Son, West Norwood, S.E., showed a splendid display of tuberous Begonias, all the blooms being picked from the open ground.

Mr. R. Forster, Nunhead Cemetery, S.E., was given a silver-gilt medal for a group of Chrysanthemums.

Mr. H. Deverill, Banbury, showed zonal Pelargoniums and hardy flowers in excellent variety.

The Pattison Patent Horse Boots for use on lawns were shown by Mr. H. Pattison, 55, Killieser Avenue, Streatham Hill, S.W., and commended. These boots are found to be extremely useful.

Mr. G. W. Piper, Uckfield, Sussex, showed blooms of a new Tea-scented Rose Peace, a lovely cream and yellow flower.

"Floral Aid," a device for holding flowers, was shown by Mr. C. J. Wakefield, 55, Hindon Street, S.W.

Mr. H. Deverill, seed grower, Banbury, offered prizes for vegetables, and much good produce was exhibited.

### ROYAL HORTICULTURAL SOCIETY.

THERE was a splendid exhibition of miscellaneous produce at the Drill Hall on Tuesday last. Hardy herbaceous flowers, Roses, Orchids, fruit, and vegetables were all well represented. No less than three gold medals were awarded, for Roses, fruit, and Potatoes to Mr. Frank Cant, Mr. Fyfe, Lockinge Park Gardens, and to Messrs. Bobbie and Co., Rotherhay, respectively.

### ORCHID COMMITTEE.

Present: Messrs. Harry J. Veitch (chairman), James O'Brien, De C. Crawshaw, H. Ballantine, Frank A. Rehder, E. Hill, H. T. Pitt, G. F. Moore, T. W. Bond, F. W. Ashton, W. Boxall, W. H. Young, H. A. Tracy, H. Little, J. Wilson Potter, and N. F. Bilney.

H. T. Pitt, Esq., Rosslyn Gardens, Stamford Hill, N. (gardener, Mr. Thurgood), had a pretty group of miscellaneous Orchids, consisting largely of Odontoglossums. There were besides several good forms of these, Cattleya Mrs. J. W. Whiteley, Lælio-Cattleya Isis Rosslyn var., Cypridium Thurgoodi, the blue Dendrobium Victoria Reginae, Cypridium bellatulum album, &c. Silver-gilt Flora medal.

An excellent group of Odontoglossums was exhibited by W. C. Walker Esq., Percy Lodge, Winchmore Hill, N. (gardener, Mr. J. Cragg). Several very good forms were included, and the plants were most vigorous. One obtained a cultural commendation. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a handsome lot of hybrid Orchids, including Lælio-Cattleya Nysa var., Bella, langleyensis, Tyro, Ophir, and callistoglossa; Cattleya Mrs. J. W. Whiteley, C. Chloe, Lælia Paeonia, L. splendens, &c. Silver Flora medal.

Messrs. Charlesworth and Co., Heaton, Bradford, Yorks, showed several beautiful Orchids, one of which, Sophro-Lælia heatonensis, obtained a first-class certificate. Cattleya Iris, C. callistoglossa albens, C. Kubelik (a pretty flower having C. granulosa as one of the parents), Sophro-Cattleya Eros and Eximia, and others were noticeable. Silver Banksian medal.

Messrs. William Bull and Sons, King's Road, Chelsea, sent Cypridium Sybil, a well-coloured hybrid between C. leucanum aureum x Sallierii.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, exhibited a small group of Orchids that contained Cattleya Firefly (award of merit), C. Harrisoni, C. Grossii, several Oncidium, and Cypridium insigne Balke. Vote of thanks.

Mr. H. A. Tracy, Orchid Nursery, Twickenham, showed Liparis venosa superba.

Sir F. Wigan, Bart., Clare Lawn, East Sheen (gardener, Mr. W. H. Young), showed L.-C. Ira, L.-C. Constance Wigan (a beautiful flower, L. xanthina x C. Rex), and L.-C. gottolana var.

De B. Crawshaw, Esq., Rosefield, Sevenoaks, showed Odontoglossum Hallio-crispum roseum.

Cypridium Charlesworthii Westfield var. and C. Charles Canham majus were sent by F. Wellesley, Esq., Westfield, Woking (gardener, Mr. J. Gilbert).

A cultural commendation was awarded to Mr. James Hudson, gardener to Leopold de Rothschild, Esq., Gunnersbury, for a plant of Dendrobium formosum giganteum var.

### CERTIFICATED ORCHIDS.

First-class certificates were awarded to Lælio-Cattleya Mme. Charles Maron.—A particularly handsome flower, the result of a cross between Cattleya Warscewiczii and Lælia digbyana. The petals and sepals are long, narrow, and spreading, and coloured a clear pretty rose. The large lip, with heavily frilled edge, is most striking; its colour is the same as that of the sepals and petals; below the column and running into the throat is a mass of yellow. Beneath the column the throat is prettily veined with brown. Exhibited by Baron Schröder, The Dell, Egham (gardener, Mr. H. Ballantine).

Sophro-Lælia heatonensis.—This remarkably handsome flower is the result of a cross between Sophronitis grandiflora and Lælia purpurata. The petals are broad and of a rich crimson-red, the narrow sepals being also of the same colour. The lip is long and somewhat tapering, crimson tinged with purple; the throat is prettily lined. Although small the flower is very attractive, its colour quite glowing. From Messrs. Charlesworth and Co., Heaton, Bradford, Yorks.

Awards of merit were given to

Cattleya Firefly.—Cattleya bowringiana and Lælia dorniana are given as the parents of this new hybrid. The flowers, which are borne about six together in a terminal raceme, have sepals and petals of a pretty shade of rosy purple, the lip being a dark velvety purple. From Messrs. Hugh Low and Co., Bush Hill Park, Enfield.

Lælio-Cattleya Isis Rosslyn var.—A richly coloured flower of very good form. The sepals and petals are of a clear deep lilac, and the lip is a rich velvety purple, having yellow blotches beneath the column. The petals are broad and well formed, the lip receding. From H. T. Pitt, Esq., Stamford Hill Gardens (gardener, Mr. Thurgood).

### FRUIT AND VEGETABLE COMMITTEE.

Present: Messrs. George Bunyard (chairman), Henry Balderson, J. Cheal, G. Woodward, T. W. Bates, S. Mortimer, A. Dean, H. J. Wright, Edwin Beckett, H. Markham, Henry Esling, G. Reynolds, F. L. Lane, James Smith, C. G. A. Nix, H. Somers Rivers, A. H. Pearson, and O. Thomas.

A splendid collection of fruit was exhibited by Lady Wantage, Lockinge Gardens, Wantage (gardener, Mr. W. Fyfe). The exhibit was tastefully arranged, richly tinted autumn foliage being used with excellent effect. The Grapes, arranged at the back of the exhibit, were of very good quality, and the dishes of Apples, Pears, Peaches, Nectarines, Plums, Figs, Cherries, &c., which were placed upon raised stands in front, although not large, were also well shown. Particularly good were the Peaches and Nectarines. The Apples, too, were well coloured.

Mr. J. H. Goodacre, Elvaston Castle Gardens, Derby, was awarded the Hogg Memorial Medal for fruit for a collection of Grapes, Melons, Peaches, Plums, Pears, and Apples. The Grapes were very good. Melons were represented chiefly by the newly certificated variety "The Peer." The Peaches were splendid, and the Apples and Pears, evidently orchard-house grown, were good also.

Messrs. E. A. White, Limited, Beltring, Paddock Wood, Kent, showed fruiting branches of various Apples. Messrs. White also showed very good examples of single Apples. Vote of thanks.

Messrs. James Veitch and Sons, Limited, Chelsea, showed a seedling Pea Lord Methuen (Williams) Bon Chrétien x Citron des Carmes), apparently a very good fruit.

Mr. J. H. Goodacre showed a good seedling late Grape with large tapering berries, much resembling Diamond Jubilee.



# THE GARDEN

No. 1613.—VOL. LXII.]

[OCTOBER 18, 1902

## THE COTTAGE FRUIT GARDEN.

THE following letter from a well-known fruit grower has been sent to us:—

"No aspect of the home life of the industrious labourers and artisans of England impresses visitors to our shores more than the cottage home embowered and wreathed in Roses, Honeysuckle, and Jasmine, and the garden and windows made bright with flowers. But, strange though it may appear, it is nevertheless true that fruit growing has been lamentably neglected in England. I know of nothing more depressing than the average fruit garden of our country industrial population—a few Gooseberry, Raspberry, and Currant bushes, huddled up in some out-of-the-way corner, almost out of sight, often choked with weeds and forgotten till the time comes round that a crop of fruit is expected from them; a crop often generous, and undeserved under such conditions of neglect and indifference.

"What a transformation might be effected in the improved surroundings and the increased comforts of our country cottage homes by the education of our workers in the elementary lessons of hardy fruit growing! Would that each country cottage had attached to it or within a convenient distance of it half an acre of land, half planted as an orchard with standard trees of the most approved varieties of Apples, Plums, and Pears in rows 20 feet apart, and the same distance between each tree. Between each row could be planted bushes of Gooseberries, Currants, and Raspberries, as well as Potatoes and other vegetables, reserving a quarter of an acre next to the house for bushes or pyramid trees of the best Apples, Pears, Plums, Cherries, and Strawberries.

"The vacant wall spaces of all buildings could be covered with choicer fruits, such as Peaches, Nectarines, Apricots, Pears, and Plums. Once such a garden and orchard were planted, in the space of a couple of years many of the trees would be in a condition to yield some fruit with the pleasant and comfortable prospect of a sure and steady increase in value afterwards each year for from ten to twenty years to come. This piece of land would bring in, when the trees were perfectly established, £15 to £20 a year, and a larger sum if the most were made of the land. This solid and tangible advantage would not be the

only gain, but the rising generation would be taught an industry calculated to fill their leisure life with interest and pleasure, and be also the means probably of weaning them from the too prevalent temptation of migrating into the town, in most cases to their own and the country's disadvantage.

"It should be remembered that once fruit trees are planted they are little expense afterwards. Half their sustenance is derived from the air, rain, and sunshine. This is no fancy picture I have drawn, but one that has been in existence in France for generations. The fruit industry has given to that nation in return one of the most industrious, contented, and well-to-do peasants of any nation. Naturally, it will be asked, how is this to be brought about? I reply, by the same agency more or less that has brought in and fostered a love of flowers in our rural people. I mean the owners of the land, employers of labour, the clergy, and schoolmaster, working in sympathy with their humbler neighbour the workman. It would be easy to form a fruit committee, constituted as above, in every village or district of every county, with the object of finding out ways and means of bringing this about. The initial cost in fencing and planting the land would probably be the greatest difficulty, but this would right itself in the course of a few years by the added value accruing to the land, in which both the owner and tenant should participate.

"Fruit shows could be organised and some of them held in winter, causing healthy rivalry among growers of Apples and Pears. There would be no lack of subjects for the consideration of such a committee. One of the most important and useful points to engage their attention would be the best means of disposing of the produce of the garden in order to secure to the grower fair and remunerative returns in exchange for labour, instead of as now the railway company and the middleman grabbing three parts of it. I saw Apples exposed for sale in a shop window in a poor district of London a few days ago at 2d. per lb. (equal to 10s. a bushel), evidently windfalls. I have often seen better fruit given to pigs. The question is how much the grower obtained for these? Did he receive 1s. per bushel? He would certainly not receive more. Yet they are sold to the poor at this extortionate rate. There is good work to be done in this way. I hope that those interested will wake up and take the matter earnestly in hand."

## EDITOR'S TABLE.

### NEW VARIETIES OF THE CARDINAL LOBELIA.

I should like to call attention to the fact that there is a *Lobelia cardinalis* being distributed in England under the name of Lord Ardilaun, which is not true. When in England recently I saw an exceedingly poor variety grown under this name in two of the principal places near London. As the raiser of both Firefly and Lord Ardilaun Lobelias, I called the attention of the gardeners to the fact that they had not the latter *Lobelia* true to name. I have obtained my employer's permission to send the true *Lobelia* Lord Ardilaun to those two gardeners. I exhibited on September 23 at the Drill Hall meeting, Westminster, good specimens of the above 5 feet 3 inches high, the main stem furnished with fifteen side branches, also Firefly, and a new seedling named St. Anne's. Although I have received many congratulations, and have seen many notices of the exhibit in English, but not gardening papers, I did not see the exhibit even mentioned in any horticultural journal. The principal object in sending the above to the Royal Horticultural Society's meeting was that the public might have an opportunity of seeing those Lobelias in their true form. I am sending specimens of the above for your inspection.—ANDREW CAMPBELL, *The Gardens, St. Anne's, Clontarf, County Dublin.*

[We are very glad of an opportunity of seeing these beautiful Lobelias, and congratulate our correspondent heartily upon his success. Firefly we consider the brightest of its race, and we have planted it largely by waterside, where its brilliant flowers in the autumn are much liked. The varieties sent to us are remarkable in many ways. The stems are over 5 feet high, branch out freely, and the leaves of dark purplish shade, which brings out the richness of the flower colouring. The variety St. Anne's has very warm crimson flowers, those of Lord Ardilaun brighter, and this is the result of a cross between Firefly and Fulgens. We hope Mr. Campbell will continue his good work in raising new varieties. Such varieties of *L. cardinalis* add greatly to the beauty of the garden in autumn.]

### FLOWERS OF EUCHARIS AMAZONICA.

Mr. J. Glasheen, gardener to A. J. Ashbee, Esq., The Retreat, Cam, Gloucestershire, sends flowers of this beautiful and well-known plant. They were of exceptional size and showed skilful culture. Mr. Glasheen mentions that the flowers sent represent the "third display in thirteen months."

### ZONAL PELARGONIUM FLOWERS.

Mr. B. Thompson, Wollaton, Nottingham, sends flowers of seedling zonal Pelargoniums, which, if the plants are of good habit and in other ways satisfactory, should prove of much use in gardens.



A salmon-rose flower marked No. 1 had very broad petals of clear and distinct colouring; No. 2 is a good rose-carmine, a pretty shade. It is difficult to tell from cut blooms whether these seedlings are any improvement upon the many named kinds in cultivation, but we like to see attempts made to get new races and varieties of flowers.

#### PEAR MICHAELMAS NELIS.

Messrs. Bunyard and Co., The Royal Nurseries, Maidstone, send fruits of this delicious Pear, which was given an award of merit at the meeting of the Fruit Committee of the Royal Horticultural Society on the 7th inst. It is a seedling from Winter Nelis, which Messrs. Bunyard found by chance in a cottage garden. The fruit is of pretty shape, medium size, and of a cool refreshing flavour. It is one of the best flavoured Pears we have tasted, and this is a year when, owing to the absence of sun, all fruits seem simply bags of water. We hope to illustrate this Pear shortly.

#### SINGLE TUBEROUS BEGONIA FLOWERS.

Messrs. Peed and Son, Ronpell Park Nurseries, Norwood Road, West Norwood, send a charming gathering of cut Begonia flowers, picked from the open ground on the 14th inst. We were pleased to see so excellent a gathering of outdoor Begonia flowers. They were fresh, large, but not coarse, and of many beautiful shades, some self scarlet, others deep crimson, while salmon and yellow, pink, and other coloured varieties were sent. A delightful strain of flowers.

#### SEEDLING MICHAELMAS DAISY DOROTHY WEAVER.

Mr. T. J. Weaver, Thirlwood, Woodside Park, N., an amateur gardener who occasionally sends most helpful notes to THE GARDEN, sends a seedling Michaelmas Daisy, which is described as evidently "a cross between A. horizontalis and some taller variety. It grows about 3 feet high, and forms an effective bush. I should describe it briefly as a white Coombefishacre." A very pretty flower, white with rosy centre, and probably has A. horizontalis as one of the parents. We hope Mr. Weaver will go on getting new Asters, and try and break right away from existing forms. We think Asters with larger flowers would be an advantage, somewhat in the way of A. Amellus bessarabicus.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

October 20.—Meetings of National Chrysanthemum Society's Floral and Executive Committees.

October 21.—Royal Horticultural Society, meeting of committees, Drill Hall, Westminster; Horticultural Club, 6 p.m., discussion after dinner on "Fruit Trees in Pots," opened by Mr. T. Alfred Rivers.

October 28.—Croydon Chrysanthemum Show (two days).

October 29.—Kent County Chrysanthemum Show at Lewisham (two days); Highgate Chrysanthemum Show (three days).

October 30.—Penarth Chrysanthemum Show.

October 31.—Finchley and Leyton Chrysanthemum Shows (each two days).

November 4.—National Chrysanthemum Society's Exhibition, Royal Aquarium (three days); Royal Horticultural Society's committees meet; Southampton and West of England Chrysanthemum Shows (each two days).

**Royal Horticultural Society.**—The next fruit and flower show of this society will be held on Tuesday next, the 21st inst., in the Drill Hall, Buckingham Gate, Westminster, 1—4 p.m. A lecture on "Hardy Summer and Autumn-flowering Bulbs" will be given by Mr. P. Rudolph Barr, F.R.H.S. At this meeting the president of the society will confer the Victoria Medal of Honour on Mr. John T. Bennett-Poë, M.A., Mr. Henry Cannell, and Mr. George Massee, F.L.S., at three o'clock. At a general meeting held on

Tuesday, the 7th inst., forty new Fellows were elected, making a total of 975 elected since the beginning of the present year.

**Cactus Dahlias for the garden.**—I was extremely pleased with the able editorial article on the 4th inst. deprecating the present fashion in Cactus Dahlias, which, in its craze for spidery, twisted-petalled forms, has ousted many most excellent varieties invaluable for the decoration of the autumn garden. I was also glad to read "A. D.'s" timely note (page 226) on the necessity of making the ornamental properties as a garden plant the first consideration with Cactus Dahlias. As he truly says, numbers of varieties that take high honours on the show board are absolutely useless for the garden, but the luckless amateur who visits a Dahlia show with the intention of taking notes of the pick of the flowers with a view to ordering a selection is entirely in the dark as to their merits as garden plants, and, ten chances to one, orders varieties that are practically valueless as decorative subjects. Nursery catalogues very naturally ignore the subject, and, as far as I know, no list of the best varieties for giving colour to the garden has appeared for some time in these columns. It would, I think, be a great help to amateurs if some authority well versed in Cactus Dahlias would give them the names of some twelve or twenty of the most ornamental for garden work, as with such a list at hand no disappointment need arise in making a selection.—S. W. FITZHERBERT.

**Carpeting plants for bulbs.**—In Mr. W. H. Divers' article upon the above subject (page 191) several plants are recommended for this purpose, amongst them are named Aubrietia, Arabis, Daisy, Myosotis, Polyanthus, Saxifraga, Viola, and others. Admirable as are these for the stronger-growing bulbs that possess comparatively long flower-stalks, such as Tulips and Hyacinths, they are not so suitable for surfacing ground in which dwarf-growing bulbs are planted as subjects whose foliage does not rise more than an inch or so above the soil. For Crocus speciosus and other autumn-flowering species, Scilla bifolia and S. sibirica, Chionodoxa, Tecophylea cyanocrocus, Zephyranthes, and Colchicums, Ionopsidium acaule proves an excellent surfacing plant. A packet of seed scattered over the ground containing the bulbs is soon followed by seedlings, which, after flowering, speedily reproduce themselves by self-sown seeds. A space in the border about 3 feet square, planted with Chionodoxa gigantea, was sown in the spring with Ionopsidium seed. This flowered well during the summer, and the soil is now covered with self-sown seedlings that will soon carpet the whole expanse. Arenaria balearica is another good dwarf surfacing subject, particularly well suited to planting around Colchicums, as it appreciates the shade cast by their large leaves during the summer, and when their foliage has disappeared carpets the ground with a close mat of bright green, starred in the spring with countless tiny white flowers. Hutchinsia alpina is also well adapted for the same purpose.—S. W. FITZHERBERT.

**Cypripedium sanderianum.**—The following note has been sent to us by Messrs. Sander and Sons, of St. Albans:—"We have just received the flower of a splendid variety of this rare and remarkable slipper Orchid from Mr. F. W. Moore, curator of the Dublin Botanic Gardens. It is one of the finest varieties we have ever seen, the colours being exceptionally bright, and the flower, while being admirably proportioned, is above the average size. The dorsal sepal has a ground colour of clear yellow, and bears nine broad and distinct stripes of dark chocolate-maroon, in addition to the chocolate edge; the inner surface is glossy, but the outer is covered with short dense hairs. The petals are over 2 feet in length, and broader at the base than is usually the case, curiously twisted, yellow, tinged with green on the basal portions, the edges bearing polished maroon warts and hairs, while at their extreme bases, as also on that, the dorsal sepal is a light beetroot-purple blotch. The yellow shade extends for about 6 inches of their length, then passes into light purplish red with darker marks.

The pouch is carried at nearly a right angle to the upper sepals, the toe of the slipper being a curious shade of olive-brown, softening into yellow on the under parts and side lobes. There are a few light purplish spots on the interior. The lower sepals strongly resemble the upper in shape, &c., but are more compressed and not nearly so bright in colour. The peculiar staminode is typical of this group, which includes Stonei and rothschildianum. The ovary is soft yellow, and at the base is a large brown-purple bract, striped on the inner surface with twelve narrow lines of a brighter colour.

**New flowering shrubs.**—We are indebted to MM. Lemoine et fils of Nancy for so many beautiful hardy flowering shrubs of hybrid origin, particularly among the Deutzias, Lilacs, and Philadelphuses, that one looks forward as the seasons come round for their catalogue of new plants of this class. In the autumn list just published the most striking feature, judging by the description and accompanying coloured plate, is Philadelphus purpureo auratus, which is said to be a seedling from the variety Fantaisie, in the production of which (Fantaisie) P. Coulteri has played a part. The illustration depicts a flower suggestive of P. Lemoinei, but somewhat larger, and while the larger portions of the petals are pure white the base of each is of a rosy purple tint, which would be as stated in the catalogue visible at some distance. It should prove to be a thoroughly good hybrid shrub, that will in time become as popular as the universally grown P. Lemoinei. Two new Deutzias are also announced, viz., D. Lemoinei Avalanche and D. Lemoinei Boule Rose, the last-named deriving its tint expressed by the varietal name from Deutzia discolor purpurascens, which was introduced from Yunnan about ten years ago. These two new forms of Deutzia should become as great favourites as several of the others from the same source that have preceded them, despite the fact that some of them resemble each other pretty closely. Double-flowered Lilacs receive an addition of three more varieties, Jeanne d'Arc, Paul Hariot, and Viviani Morel, but as the catalogue already contains thirty-seven varieties from the same raisers it is difficult to see where the points of difference can come in. A most interesting hybrid is announced under the name of Exochorda Alberti macrantha, between the species just named and E. grandiflora, this last being the pollen parent. It is described as having the habit of E. Alberti with the floriferousness of E. grandiflora, a description borne out by the woodcut that accompanies it. Two new Weigelas—Dame Blanche, ivory white, with a yellow throat; and Perle, cream, edged with rose—will doubtless prove to be good flowering shrubs. Berberis japonica flore lutea is said to be a form of B. japonica with chrome-yellow flowers, but whether the Barberry thus indicated is that generally known as B. japonica, which at Kew is considered synonymous with B. nepalensis, is at least open to conjecture.—H. P.

**Peach Late Devonian.**—Few late Peaches this season have been better than the above, either with regard to cropping, size, or flavour, and the latter is such an important point that any new fruit is worth special notice on that account alone. A few seasons ago this new Peach was placed before the Fruit Committee of the Royal Horticultural Society, and received an award, which it well merited. Messrs. Veitch of Exeter have cause to be proud of this splendid addition to the late Peaches. The fruits are very handsome, and so far with us since the trees were three years old they have always fruited. This season is the best on record, and not only is the crop large, but equally good and ripe on a west wall about September 20, on a south one, rather earlier. Of course in the north the fruits would be later. I have referred to its size and appearance. There are much larger fruits, but Late Devonian is large enough for all purposes, and is beautifully coloured. My experience of very large late Peaches is that they lack flavour. The fruits are a dark crimson on the sunny side, flesh very rich and melting, and the tree a vigorous grower, free from mildew, and, given good culture, a most profitable variety for the season named.—G. WYTHES.



**Rose Alister Stella Gray.**—I have grown this beautiful Noisette Rose for some years and find it one of the most useful of its class. Planted against a low wall facing west it does admirably, and if allowed to grow in its own way it will flower abundantly. It is beautiful in the bud. The flowers are a pale and rather dull yellow colour, and borne in clusters. Where room can be found for two or three plants handfuls of buds may be gathered daily for several months in the year.—T. B. FIELD, *Ashwellthorpe Hall Gardens, Norwich.*

**Crinum augustum.**—This handsome species is at present flowering in the Palm house at Kew. It is a very desirable plant, both from a foliage and flowering point of view, and as it is of no more trouble to grow than the majority of stove plants it is very suitable to include in a collection of them. It has been in cultivation for a considerable time, having been introduced from Mauritius and the Seychelles about 1818. The leaves are from 4 feet to 5 feet long, 6 inches wide, and channelled. The flower-scape is from 2 feet to 3 feet high, and terminated with a large umbel of blossoms. The scape is sturdy and green, heavily stained with purple. From

**Exogonium Purga.**—This pretty flowering climber, alluded to on page 240, is, apart from the beauty of its flowers, of considerable economic interest, as from its tuberous roots the jalap of commerce is prepared, at least it was the first to be so used, but now I believe the drug is also obtained from other members of the Convolvulus family. This *Exogonium* was, according to the "Dictionary of Gardening," introduced from Mexico in 1838, and in the warmer parts of the country it will, with a little protection, stand the winter out of doors, flowering as stated till cut by the frost. It is in every way a Convolvulus-like plant, with flowers nearly the size of the large-flowered native Bindweed (*Convolvulus sepium*), and violet-purple in tint. With the changes continually taking place in the nomenclature of plants, it is now included in the genus *Ipomœa*, the specific name of *Purga* remaining the same.—T.

**Amaryllis Autumn Beauty.**—Nearly all the original species and garden varieties of *Amaryllis* or *Hippeastrum* flower during the early months of the year, but to this there are a few exceptions, one of them being *Amaryllis reticulata*, which was introduced from Brazil as long ago as 1677, this being one of the earliest exotic bulbs to

have the characteristic pale band of *A. reticulata*. These hybrids possess the great advantage of blooming more freely than the typical *A. reticulata*, and they serve to extend the flowering season of this beautiful class of plants, for scarcely are they over when the brick red *A. aulica* unfolds its curiously shaped blossoms.—H. P.

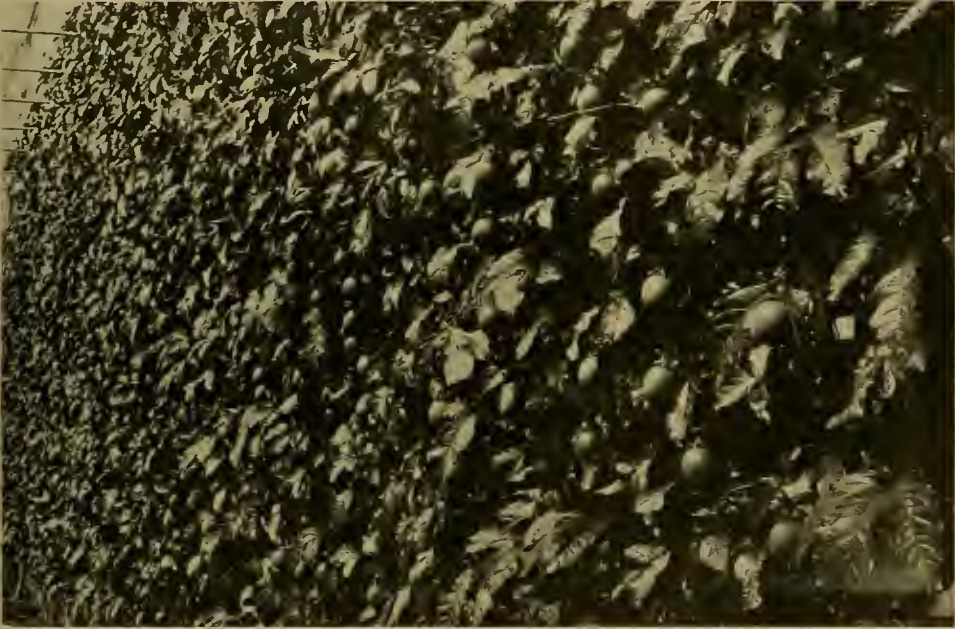
**Passiflora edulis.**—I enclose a photograph of *Passiflora edulis* for THE GARDEN. There were six plants, which were planted four years ago on the back wall of a late vinery, and when the photograph was taken in June last there were over 800 fruits. It is very much prized here for jam as well as for dessert.—HENRY WORTH (gardener to R. M. Graves, Esq.), *Wern, Portmadoc.*

**Is Rose Mme. Jules Grolez scentless?**—In THE GARDEN of October 4 (page 232) I read an account of a Hybrid Tea Rose (*Mme. Jules Grolez*) by Mr. Arthur R. Goodwin, who winds up what appears to be a well-merited encomium on a good Rose with the remark: "It has, alas! a fault—it is scentless." The same gentleman appears to have forwarded a boxful of this Rose to the Editor of this paper, who in his comments (page 240) says: "*The scent is powerful and delicious.*" We seem to have got a little "mixed" here, a state of things for which, perhaps, the north-east wind may be in a measure responsible.—J. C. L.

I must confess that I was rather surprised to read the editorial remarks describing the fragrance of this fine Rose as being "powerful and delicious." This has been far from my experience with it this summer, while last year I only had one plant of it, and did not take particular note as regards its fragrance. I can only suppose that the blooms which I sent to the Editor were improved in this respect by being confined in a box for fifteen hours. On the 8th inst. I submitted some freshly-cut blooms of this Rose to some of the members of our local horticultural society, and they quite agreed with me as to the absence of scent. On the same day I gathered blooms of *La France*, *Angustine Guinoisseau*, *Johanna Sebus*, and *Mme. Abel Chatenay*, all most deliciously scented. Why should not the east wind—as suggested by "J. C. L."—have affected these varieties as regards their fragrance? While writing this note I have before me two blooms of *Mme. Jules Grolez* and one of the lovely *Johanna Sebus*. This latter is deliciously scented, but the former still refuses to impart any scent whatever. If, therefore, we describe the fragrance of *Mme. Jules Grolez* as being "powerful and delicious," what adjectives are we to use in describing the fragrance of such kinds as *La France*, *Johanna Sebus*, &c.? If it is due to the abnormal season that this Rose has proved scentless with me, I shall only be too glad to hear of it. In that case it will, indeed, be difficult to find any fault with this variety, and I am very pleased to see that in Messrs. Paul and Son's (Cheshunt) new catalogue it is described as being "the finest rose-pink bedding Rose we have."—ARTHUR R. GOODWIN, *Worcestershire.*

The flowers sent were undoubtedly fragrant. When asked to judge a Rose we always find out whether it possesses fragrance or not, as a scentless Rose is, we consider, without a precious attribute of the flower. Perhaps, as our correspondent says, fifteen hours in a box may have had something to do with the matter.—ED.

**Lilium speciosum.**—The dull cold weather that we have experienced during the last summer has left its mark on this Lily, as in many places the flowers are so backward that in the open ground there is but little chance of many of them expanding properly. In the greenhouse it is, however, invaluable, serving as it does to bridge over the time between the summer-flowering subjects and the *Chrysanthemums*, for its flowers are then very welcome. Established plants, whether in pots or in the open ground, are earlier in flowering than freshly-imported bulbs. If these latter are laid in some cocoanut refuse out of doors as soon as they are received, mostly in December, January, or February, they will,



THE EDIBLE PASSION-FLOWER (*PASSIFLORA EDULIS*) IN THE GARDENS, WERN, PORTMADOC, NORTH WALES. (The trees were planted four years ago.)

twelve to twenty flowers are borne in the umbel. These have slender tubes 5 inches long and deep red in colour. The free portions of the segment are of a rich reddish purple outside and paler within; the stamens have reddish purple filaments and golden anthers. At Kew it is grown in rich loam, and enjoys the moist, warm atmosphere of the Palm house.—W. D.

**Pancratium illyricum.**—I notice that in Mr. G. B. Mallett's table of bulbous plants for naturalising in grass (page 196) *Pancratium maritimum* is included, while the subject of this note is omitted. I should consider both of these to be entirely unsuited for growing in grass, and imagine that in recommending *P. maritimum* for such a site the writer did not draw on his personal experience. As a matter of fact *P. illyricum* is a far more satisfactory plant than *P. maritimum*. I grow the former myself, and have met with it in flower in other gardens, but although *P. maritimum* lives it never or rarely blooms according to the testimony I have received in gardens in the south-west where it is grown. Sandy soil at the foot of a south wall has been found most conducive to success in the case of *P. illyricum*, and from the nature of its habitat the same conditions should be best suited to the successful culture of *P. maritimum*.—S. W. FITZHERBERT, *South Devon.*

be cultivated here. It has never proved very amenable to cultivation, being a shy flowerer, but when the blossoms are borne they are always much appreciated, being produced during the autumn months. The ground colour of the flower is ivory white or pale blush, overspread with reddish reticulations. Apart from the flowers the whitish stripe down the centre of each leaf forms also a distinguishing feature. Several hybrids between *A. reticulata* and other forms have at different times been raised, notably about twenty or thirty years ago. Mr. O'Brien, when with Messrs. Henderson, of the Pine-apple Nursery, Maid Vale, raised *A. O'Brieni* and several other kinds; while one raised by Mr. B. S. Williams, and named Mrs. Garfield, was for a time at least thought highly of. These reminiscences were suggested by the sight of a plant of *Autumn Beauty*, another variety of this class, in full flower, and very attractive it was, particularly when one bears in mind that the month of October had set in. The variety *Autumn Beauty* was raised by Messrs. Veitch at Chelsea, and formed one of the novelties distributed by that firm in 1882. It was described as a beautiful and distinct hybrid, raised between an unnamed seedling and *A. reticulata*. The flowers are of medium size and good form, delicate pale rose, reticulated with bright rosy pink. The leaves



with a mat or two thrown over them in the event of very severe frost, keep well till ready for potting. This should be done in March or April, when at least in the southern portion of the country they can be stood out of doors. If left there during the summer the blossoms expand at a time when they are as a rule more valuable for indoor decoration than if they were brought on earlier under glass. Throughout the summer they should be stood on a bed of coal ashes or some other good firm bottom, and if the pots are plunged in cocoanut refuse or some similar material the labour of watering will be greatly minimised. During the growing season an occasional dose of liquid manure will be of service. Aphides are, in the case of this Lily out of doors, rarely or never troublesome. —H. P.

**Erythrina umbrosa.**—Though *Erythrina umbrosa*, as mentioned on page 227, does not occur in either Nicholson's or Johnson's horticultural dictionaries nor in the "Kew Hand List," either as a recognised species or as a synonym, it is to be found in such old works of reference as London's "Hortus Britannicus" of 1830 and the first edition of Paxton's "Botanical Dictionary." According to these publications it is a native of Caraccas, and was introduced in 1817. The authority for the name of *umbrosa* is Humboldt and Bonpland, while according to both these works *Erythrina arborea* of gardens is synonymous with it. I fail, however, to find this latter name mentioned anywhere else. —T.

**Hampstead Heath Protection Society.**—The hon. secretaries, Mr. H. F. Pooley and Miss Emily Field, write: "Will you allow us to call the attention of your readers to the fact that the Charing Cross, Euston, and Hampstead Railway Bill, which asks for powers to tunnel under the centre of Hampstead Heath, is now awaiting its third reading in the House of Commons. We consider that the construction of a railway under the Heath will create a very bad precedent, and we fear that notwithstanding any protective clauses that might be inserted in the Bill, the picturesqueness of the Heath will be seriously injured before many years have passed. We call on everyone of your readers who loves the Heath to write to their Member of Parliament now, asking him not to agree to the route under Hampstead Heath, which route is, to put it at the lowest, absolutely unnecessary. If the present opportunity is taken the safety of the Heath will be secured, but if it is lost we fear that the victory of the commercial speculator, in this instance, will be followed by similar or worse attempts in the future, with fatal results to Hampstead Heath."

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

*ACACIA LINEATA*, *A. linifolia*, *Berlandiera tomentosa*, and *Tricyrtis hirta*.

#### Palm House.

*Crinum augustum*.

#### Orchid Houses.

*Acineta Barkeri*, *Catasetum christyanum*, *Cattleya Aclandiae*, *C. marseillensis*, *Dendrobium Phalaenopsis*, *Epidendrum Armstrongii*, *E. raniferum*, *Eulophia pulchra*, *Houlletia brocklehurstiana*, *Ionopsis paniculata*, *Lelio-Cattleya Amelia*, *L.-C. callistoglossa*, *Miltouia candida*, *M. Clowesii*, *M. spectabilis* var. *moreliana*, *Mormodes Buccinator*, *Neobenthamia gracilis*, *Oncidium crispum*, *O. Forbesii*, *O. incurvum*, *O. varicosum*, *Polystachya rufinula*, and *Vanda kimbaliiana*.

#### Range.

*Amasonia calycina*, *Aphelandra chamissoniana*, *Brunfelsia americana*, *Gloriosa superba*, *Hippeastrum aulicum*, *Hymenocallis ovata*, *Ipomoea rubrocerulea*, *Nerine* (various species and varieties), *Nothoscordum striatum*, *Oxalis rusciformis*, *Plumbago rosea*, and *Thunbergia grandiflora*.

#### Greenhouse.

*Acacia platyptera*, *Angelonia salicariaefolia*,

*Begonia glaucophylla*, *B. weltoniensis*, *Cnpeha micropetala*, *Datura huberiana* var. *alba plena*, *Hidalgoa Wercklei*, *Justicia magnifica* var. *pohliana*, *Lilium sulphureum*, *Peristrophe speciosa*, *Plumbago capensis*, *Primula Forbesii*, *P. obconica*, *P. sinensis*, *Salvia azurea*, *S. splendens*, and *Statice macroptera*.

#### Aroid House.

*Anthurium coriaceum*, *A. nymphaefolium*, and *Spathiphyllum longirostre*.

#### Rock Garden and Herbaceous Borders.

*Aconitum Fischeri*, *Amaryllis Belladonna*, *Asters* in variety, *Chrysanthemum uliginosum*, *Colchicums* in variety, *Cytisus Henfeli*, *Kniphofia Nelsoni*, *Linaria alpina*, *Polygala chamaebuxus* var. *rosea*, *Tricyrtis pilosa*, and *Zephyranthes candida*.

## THE BEST APPLES AND PEARS.

So great is the interest now taken in fruit growing in England, both for private use and for market, that a select list of the best sorts to grow in moderate sized gardens and orchards, arranged in the order of ripening, may be useful to many readers of THE GARDEN at this season of the year. The lists of sorts given in nurserymen's catalogues, though compiled as a rule with the greatest care, are necessarily so lengthy that the list is apt to bewilder the inexperienced, often making a suitable selection of varieties a difficult and irksome task.

### DESSERT APPLES.

#### JULY AND AUGUST.

Early Harvest, Duchess of Oldenburgh, Irish Peach, Mr. Gladstone, Devonshire Quarrenden, and Juneating. It is advisable not to plant too many early Apple trees, as the fruits only remain in good condition for dessert for a short time, and are best eaten a few days after gathering. One tree of a sort is usually enough in a moderate sized garden.

#### SEPTEMBER AND OCTOBER.

Langley Pippin, Worcester Pearmain, Cornish Aromatic, American Mother, Margil, James Grieve, and Lady Sudeley. Worcester Pearmain has a reputation of being the best September dessert Apple we have, whether for the home or for market. It is of medium size, sweet flavour, good regular cropper, and on account of its intensely red cheeks, and high and beautiful colour, it is one of the best early dessert Apples to grow for market, commanding as it does a considerably higher price than any other. James Grieve is a variety recently introduced from Scotland, and has come to stay. It may well be termed an early Cox's Orange, one of the best dessert Apples for October.

#### NOVEMBER AND DECEMBER.

Cox's Orange Pippin, Ribston Pippin, King of the Pippins, King of Tomkin's County, Scarlet Nonpareil, Braddick's Nonpareil, Allington Pippin, and Adam's Pearmain.

From November to Christmas, and indeed to the end of January if carefully preserved, Cox's Orange Pippin is of all others the best dessert Apple. Ribston is slightly earlier, and, as is well known, of splendid quality; but the tree does not grow freely in every soil and district, and is always more or less inclined to canker, so that a limited number of trees of this fine variety are now planted. Allington Pippin is a comparatively new variety of great promise. It is of handsome appearance, crops heavily, and is one of those sorts that gives a good return on young trees the first few years after planting.

#### JANUARY.

Many of the November and December Apples will be in good condition well into February, and to continue the supply to the end of March the following varieties should be included:—Northern Spy, Lemon Pippin, Mannington Pearmain, and Wyken Pippin.

#### APRIL, MAY, AND JUNE.

The latest of all dessert Apples are the following, which will continue to give a supply of good

dessert fruit until the end of May and well into June:—Brownlee's Russet, Allen's Everlasting, Lord Burghley, and Sturmer Pippin.

### COOKING APPLES.

#### AUGUST AND SEPTEMBER.

Domino, Keswick Codlin, Frogmore Prolific, and Stirling Castle.

#### OCTOBER AND NOVEMBER.

Grenadier, Ecklinville Seedling, Beauty of Kent, Cellini, Stone's Seedling, and Warner's King.

#### DECEMBER AND JANUARY.

Betty Geeson, Blenheim Orange, Lane's Prince Albert, Baumann's Red Reinette, and Winter Hawthornden. The above will remain in good condition till the end of February, and for a supply after that to the middle or end of June the following are the best varieties to depend upon.

#### MARCH, APRIL, MAY, AND JUNE.

Alfriston, Royal Late Cooking, Bramley's Seedling, Barnack Beauty, Newton Wonder, Chelmsford Wonder, Wellington, New Northern Greening, Norfolk Beaufin, Striped Beaufin, and Annie Elizabeth. Wellington, as is well known, is one of the best approved varieties for cooking we have. Unfortunately, the tree is not an over good grower, and its cropping qualities are not very reliable. A variety more to be relied on as a consistent cropper, and equal to the Wellington in quality and far superior to it in size and handsome appearance, is Newton Wonder. It is a cross between Wellington and Blenheim Orange, and in my opinion is one of the most valuable Apples introduced for many years, and as it becomes better known it is sure to become a popular standard variety, especially for market. Its large size, attractive colouring, and late-keeping qualities invest it with a value which few, if any, other cooking Apples possess. For planting in gardens as bushes or otherwise the trees should be worked on the English Paradise stock and for orchard planting on the Crab stock.

### PEARS.

Of these I will confine myself to those varieties which can be successfully grown in the south and warmer parts of England in the open quarters of the garden and the orchard. Those having walls to cover should reserve them for Peaches, Nectarines, Apricots, and the best varieties of Plums. In more northern and colder climates, of course, the service of the warm wall must be utilised for the successful growth of many of our best Pears.

#### JULY AND AUGUST.

Doyenné d'Été, Citron des Carmes, Beurré Giffard, Jargonelle, and Williams' Bon Chrétien. With respect to early Pears as to the number of trees to be planted, the same remarks apply as to early Apples.

#### SEPTEMBER AND OCTOBER.

Fondante d'Automne, Souv. du Congrès, Beurré Mortillet, Triomphe de Vienne, Marguerite Marillat, Beurré Hardy, Mme. Treyve, Louise Bonne of Jersey, Marie Louise, Conseiller de la Cour, Comte de Lamy, and Seckle.

#### NOVEMBER AND DECEMBER.

Doyenné du Comice, Glou Morceau, Thompson's, Van Mons. Léon Leclerc, Beurré Bosc, D'urondeau, Pitmaston Duchess, Emile d'Heyst, Passe Colmar, and La Duchesse.

#### JANUARY AND FEBRUARY.

Josephine de Malines, Marie Benoist, Nouvelle Fulvie, Beurré Sterckmans, Passe Crassane, Knight's Monarch, Winter Nelis, Le Lectier, and Forelle.

#### MARCH TO MAY.

Doyenné d'Aleçon, Easter Beurré, Olivier des Serres, Beurré de Jonghe, and Marie Benoist; and for the latest of all Beurré Rance and Duchesse de Bordeaux.

#### BEST STEWING PEARS.

General Todtleben, Grosse Calebasse, Vicar of Winkfield, Uvedale's St. Germain, Bellissime d'Hiver, and Winter Orange.



THE BLACKBERRIES AND BRAMBLES.

THERE can be no doubt whatever that the Loganberry is the best of these new fruits, though the newer Mahdi will in time become a great favourite. I consider both these fruits have a great future, as from the short experience I have had with them they appear to me to grow well where the Raspberry fails. No note of the Brambles would be complete without referring to the Wineberry or *Rubus phoenicolasius*. The latter is very prolific and well worth extended cultivation. In addition to the above fruits, the Barberry may well be included, as, though less grown for its fruits, the ordinary *Berberis vulgaris* or scarlet-fruited Barberry is very useful for adding to Raspberry-jam or to mix with Apples. Some years ago I well remember the introduction of the American Blackberries, but very few made much headway in this country; they grew freely enough, but did not fruit as well as one could wish. There were exceptions, and I have seen fine fruits here and there of the Lawton, but I never had much success with them myself. The Parsley-leaved or Cut-leaved Bramble is well worth culture, and I will refer to this later on. In addition to its fruit it makes a handsome climber.

Take the Loganberry first. So far I have never seen this fruit fail; indeed, the older the bushes the heavier the crop, if the old fruiting wood is cut out as soon as the crop is cleared and the new wood tied up or supported, as it soon gets injured owing to its weight and size. This year we have had new shoots quite 15 feet long, and when it is borne in mind that the fruit is produced on this wood next season it will be seen what abundance of fruit is given. The Loganberry resembles the Blackberry in growth but the Raspberry in fruit. The latter is finer than the Raspberry and more acid, but should not be despised on that account. It makes a delicious preserve, and is not at all inferior for dessert when fully ripe. There is no doubt whatever of its value for tarts, and as it closely follows the Raspberry it is most useful. It is described as a Raspberry-Blackberry. Of this I am not quite sure, but Messrs. Veitch, who raised The Mahdi, give it the same parentage, the autumn Raspberry Belle de Fonteney and the common Blackberry. The fruit of the Loganberry I think is slightly more acid than The Mahdi, but that may be a question of taste; both are alike in growth, and both are very prolific, and fill a gap between the autumn Raspberries and the summer fruiters.

I grew some on a north wall, but I find the plants are equally at home grown as pillar plants, or, what is better, trained over arches. I have seen it stated that it does well grown in the same way as the Raspberry, but if grown thus it should have ample space. I recently saw a splendid crop of fruit in the northern part of the country. The plant was trained to hurdles 8 feet high. The plants start into growth early, so I would advise autumn or early winter planting, giving a deeply dug soil. Some think that the Loganberry if grown from seed is not reliable, and I am inclined to that opinion, as our plants, in what may be termed light, poor soil, give very fine fruits, and were obtained from the original stock, whereas I have seen much smaller fruits and less vigorous plants from seed. I need not further refer to The Mahdi, as the two are so much alike, but will add a brief note as regards the other fruits named above.

The Wineberry is very different from those described, and is a very free grower. It makes a strong growth, and in this respect much resembles the Raspberry. The fruits are not unlike a Mulberry, and are produced in profusion. They make one of the most delicious preserves known. Unfortunately, birds are very fond of the fruits, and, unless these are protected, they are taken wholesale. The growths are remarkably robust, and the wood is striking owing to its colour; the foliage is elegant. The plant makes a good climber for large spaces, though it does not attain the proportions of the Blackberry. The culture is

very similar to that of the Raspberry, and the plant may be grown on pillars or fences. It should be given an open position, needs much moisture, and I find it is more particular as to soil and situation than the Brambles. Much interest attaches to these plants when grown as pillar plants or supported by old trees or stumps. Grown thus they are very effective and give little trouble. I fear the Wineberry is less profitable than the others named, as, though it bears freely, the fruits are smaller and less freely produced than the Loganberry, and more difficult to gather or to preserve from birds.

I have referred to the Cut-leaved Bramble, a plant well worth culture. Grown for its fruit it is less productive than the Loganberry, but a useful plant to cover old trees and a handsome climber for fences. The foliage in the autumn is very pretty, and the plant bears a larger fruit than the common Blackberry. The Whitewash Bramble, or Black Cap as it is more commonly called, is a very striking plant for shrubbery work. This in the autumn appears as though the stems had been whitewashed or covered with lime. For its fruit alone I do not think it very profitable. The Strawberry-Raspberry (*Rubus palmatus*) is a distinct plant, bearing fruits not unlike the Arbutus, but they are not valuable. This plant is small and makes a bush. There is a dwarf creeping kind which does best when given partial shade, but they cannot be termed profitable as regards their fruits. The Red Barberry is well known as being valuable for using with other fruits. It is a free grower and very effective for massing in shrubberies, as it fruits freely, and in the autumn the berries are very striking.

G. WYTHES.

INJURIOUS INSECTS AND DISEASES AFFECTING FRUIT TREES.

IN the culture of fruit, whether in the orchard, open garden, or under glass, the question of injurious insects and diseases is apt to be looked upon with some amount of dismay, but after all these are rarely to be counted upon as permanent factors, and considered rightly they are the direct and perhaps the most efficient means of keeping the fruit grower in a state of mental alertness.

There are three general types of difficulties in fruit growing, which have been classified by Professor Bailey as follows:—

- 1.—Attacks by insects.  
(a) The injuries of those insects which eat or chew the part of the plants, and which, therefore, are killed by the application of some poison, such as Paris green. These insects include the whole tribe of caterpillars, worms, and beetles.  
(b) Attacks of insects which suck their food, and which are, therefore, destroyed by caustic applications which injure the bodies of the pests. All the tribes of plant lice and scale insects may be placed under this heading, and for these kerosene emulsion, resin washes, and the like are the specifics.
- 2.—Parasitic fungous diseases, such as the Apple scab, mildew of the Grape, leaf blight of the Plum and Pear, Currant gall, canker, and the like. These diseases are characterised by definite spots, discolourations, or excrescences, which are more or less distributed over the surface of the root, branch, leaf, or fruit. As a rule, the leaves and fruits which are attacked have a tendency to drop from the tree. The general treatment for these diseases is to spray with some fungicidal mixture. The treatment is useful in proportion as it is applied early and thoroughly. After the disease once gets into the tissues of the host plant it is difficult, if not impossible, to kill it. If, however, the fungicide is applied before the parasite gets permanently established there will be less danger of its obtaining a foothold. Even if the fungus has made headway a thorough spraying will check its progress by preventing the development of its external parts.
- 3.—The physiological and bacterial diseases of those which are termed constitutional troubles. In these cases there are rarely any definite spots,

as in the attacks of parasitic fungi, but the entire leaf, or even the entire plant, or a large part of it, shows a general weakening by disease, as if there were some cutting off of the accustomed source of nourishment. Such diseases are very likely to be seen in the general yellowing and dearth of the foliage; in the dying of the leaf along the main veins and around the edges, showing that the difficulty is one which affects the entire leaf, and not any particular part of it. In general there is a tendency for the foliage in plants so attacked to wither up and hang on the tree for a time. There are no specific treatments for troubles of this sort. The diseased plant or parts must be cut away and burned. All the conditions which seem to favour the development of the disease must be removed. Careful management in matters of sanitation is often much more important than any attempt at specific treatment.

Injurious insects follow swiftly on the heels of disease, and disease is usually further strengthened by the destructive agency of insect pests.

So far as our experience shows the protection of our fruit crops from insect ravage is likely to be an increasing difficulty, consequently on the increasing extent of the areas in which one kind of orchard tree or fruit bush is grown year after year, thus giving every opportunity for the established settlement of the insect feeders on that special crop.

APPLE.

Under proper treatment the Apple tree is rarely affected by either disease or insect. It is chiefly when injured by mismanagement, starved for want of plant food or too heavily cropped, that trouble ensues. Soil and climate are powerful factors in the production of Apple disease, and also frequently invite the attacks of insects. The chief causes of injury may, therefore, be stated to be over-luxuriance or weakness of growth.

The chief diseases that attack the Apple are canker, mildew, and American blight. The first is caused by bad drainage, the second arises from many and the most opposite causes, such as improper manuring, over-cropping, excess of heat or moisture.

The attack of the woolly Apple aphid, commonly known as American blight, may be taken as an example of orchard infestation which is exceedingly common, and is very injurious by destroying the health of the tree, and yet at the same time is so open to remedy that it may with little expense or trouble be stopped even at the outset. The presence of the Apple bark plant louse or woolly aphid may be easily detected by the cottony growth on the insects, giving the appearance of a white film. When there are many the spot appears as if a knot of cotton wool were sticking to the bough or even hanging loose in pieces several inches in length.

With regard to remedies, soft soap, tar, or, in fact, anything oily, greasy, or sticky that can be well rubbed on, and which by adhering for a time will choke all the aphides that it touches, will be of use.

Other insects that attack the Apple are the green-fly (Aphis mali), codlin moth (*Carpocapsa pomonella*), blue-head caterpillar (*Diloba caerulea*), goat moth (*Cossus ligniperda*), lackey moth (*Bombyx neustria*), lapped moth (*Gastropatha quercifolia*), small ermine moth (*Hyponomeuta padellus*), Apple saw-fly (*Hoplocampa testudinea*), and Apple blossom weevil (*Anthonomus pomorum*).

Of all these pests probably the codlin moth is most frequent and persistent, because the attack is one of the regular recurring yearly troubles of the fruit grower, and although the maggoty or worm-eaten condition of the young fruit, which we know only too well as causing it to fall in quantities before it is large enough to be of any use may sometimes arise from Apple saw-fly presence or from other infestation, yet for the most part the mischief is due to the larvæ of the codlin moth. Other of our orchard fruits are also liable to this infestation, Pears, Plums, Peaches, Quinces, and Apricots are sometimes much injured. Walnuts and Chestnuts also have been found to be infested. As a prevention and remedy



the following plan may be adopted: Wind a hay-band in three coils tightly round the trunk of a tree at a little distance from the ground and apply other hay-bands to the larger branches. These bands should be placed around the tree early in June and kept on till fruit harvest; further, they should be pushed up or down and the worms or chrysalids crushed that were under them every week or two. Also the trunk of the tree should be kept free from rough old bark so as to give the worms no other place of shelter, and, lastly, the ground itself should be kept free from rubbish.

Cherry and Pear saw-fly (*Selandria atra*).—The small blackish moist-looking larvæ of the Cherry and Pear saw-fly, known as slugworms, from their great resemblance to the little slimy slugs feeding on the upper side of the infested leaves, are often not recognised as caterpillars from their very peculiar appearance, from which they take their name. They feed on the leaves of Cherry, Pear, Plum, and sometimes on Peach and Quince, and they do serious mischief by devouring the skin of the upper side of the leaf, so that the remainder appears like a network of veins held together by the skin of the lower side, which is left untouched and turns to a deep brown colour. The destructive work of the caterpillars can be at times very rapid and complete. The attack may be checked by dusting or spraying. The caterpillars, if annoyed by throwing a caustic powder on them, such as quicklime or gas-lime, can throw it off at first by exuding a coating of slime and thus as it were moulting off the obnoxious matter; but they cannot keep on continuing this process, therefore a second application of the powder (soon after the first) takes effect and kills them. If a good time is allowed to elapse between the dressings they will have regained the power to produce the slime exudation, and the application will do little service. Heavy syringings of the tree with strong soapsuds applied by a powerful garden engine are very effective in getting rid of this pest. Also a liberal dressing of lime and soot well mixed together is a capital remedy; in this case a thorough washing down of the foliage on the following day, so as to clear off the adhering coating, is needed to complete the work.

#### CURRENT.

Current aphides or green-fly (*Aphis ribis*) are injurious by crowding beneath the under side of the leafage and by their innumerable punctures and drawing away of the sap give rise to the brightly coloured blistered or humpy growths so often seen on the upper side of the Currant leaf, and in bad attacks nearly the whole of the foliage will be distorted and crumpled out of shape and the fruit will be blighted. Where much damage is being caused it is a good plan to break off the leaves and burn them. In dry weather an application of plentiful waterings so as to keep up good growth of the foliage is in itself a great check to aphid increase.

Current gall-mite (*Phytoptus ribis*).—The deformed bud growths, which for many years have been a source of great trouble to Black Currant growers, are caused by an exceedingly minute mite, too small to be seen by the naked eye, which propagates in the buds and causes an unnaturally large development of these into spherical green knobs, formed outside of greenish scales or abortive leaves folding over each other, and inside of the various parts which would gradually have developed into leaves, flowers, and fruit, but contorted by the action of the mites into unnatural conditions, and abortive for any useful purpose. These knobs may be found forming during the winter, whilst the healthy buds are still of the natural shape, and in January will have attained to as much as a quarter of an inch in diameter, and containing within them numbers of the mites and some eggs.

*Prevention and Remedy.*—The method which is most frequently tried is breaking of the galled buds and burning them, and though it cannot but be that in this way a great deal of the mite presence is got rid of, which would have otherwise spread infestation, yet the plan is very far from answering as could be wished. Among observations of treatment from which some amount of

good resulted was a dressing of 2lb. sulphur and 3lb. lime, boiled together in three gallons of water, which is further diluted at the rate of two or three pints to a large pail of water, applied with a syringe to the infested bushes.

#### GOOSEBERRY.

The Gooseberry when planted in suitable soil is rendered peculiarly free from disease, but there are several insect pests which are very troublesome. Among others may be mentioned the magpie moth (*Abraxa grossulariata*), dot moth (*Mamestra persicaria*), Gooseberry and Ivy red spider (*Bryobia praetiosa*), Gooseberry and Currant saw-fly (*Nemitis Ribesii*), and the Gooseberry and Currant scale (*Lecanium ribis*). The greatest amount of damage is probably done by the magpie moth and the saw-fly caterpillar. The pretty butterfly-like magpie moth is one of the most widely distributed garden leafage infestations. The common garden food plants of the caterpillars are Gooseberry, red and white, and sometimes Black Currant, and the foliage of Apricot and Pear is also attacked.

*Prevention and Remedy.*—The habit of the caterpillars of wintering in spun-together leaves still hanging on the bushes, or sometimes lying amongst any shelter on the ground beneath, is the special habit to be acted on to get rid of the pest. At pruning time the bushes should be carefully gone over to make sure that there are no leaves which may hold a caterpillar. When Currant bushes are trained on walls search is especially requisite. The longer the pruning can be deferred the better. Pruning and dressing under the bushes should not take place until the time for the fall of the leaves is quite past. All the pruning and possibly infested rubbish from beneath the bushes should be collected and burnt. Flowers of sulphur dusted on the leaves when the dew is on, or a liberal application of soot similarly used, are serviceable remedies and safe.

The Gooseberry and Currant saw-fly attack is perhaps one of the most destructive that bush fruit growers have to contend with, on account of its frequent recurrence and the great powers of ruining the leafage of the attacked leaves even by scores of acres. The life history is that the female saw-fly appears about May and lays her eggs beneath the skin of the leaf. The grubs soon hatch and begin feeding on the leaf where they are placed, which they pierce full of holes, and continue to feed on until all the leaf, excepting the mid-rib, is devoured. Thus they continue their work of destruction, moulting from time to time, and hanging on to the leaf with their fore legs, with their tails in the air. After the operation of casting the skin for the last time, they go down with the soil and bury themselves, to turn to the pupal state, from

which the saw-flies come out in three weeks in summer, or in the case of late broods in the following spring. For prevention of attack, excepting what may be borne on the wing by stray saw-flies from elsewhere, the most certain plan is autumn or winter removal of surface soil from under the bushes. A deep hole may be dug in some other place into which the removed soil with whatever may be in it is buried. The soil under the fruit bushes may be replaced by that taken out of the hole with the addition of some manure. Hand picking is recommended, also dressings of sulphur powder when the dew is on the bushes.

J. J. WILLIS.

(To be continued.)

#### SOME VALUABLE PEARS.

DURING the past few years many valuable hardy fruits have been introduced. The new Pears are most interesting, and the variety illustrated, Marguerite Marillat, a valuable September fruit, will, I think, prove most profitable. It will be said that we have too many Pears, but the variety

#### MARGUERITE MARILLAT

does so well in a poor fruit soil, and crops well even in bad seasons, that I think its popularity is assured. With regard to flavour it is not so good as Doyenné du Comice, doubtless the best Pear we have for flavour, but even the last-named variety is not a success in all parts of the country. The variety illustrated



A BASKET OF MARGUERITE MARILLAT.  
(Reduced one-half.)



was introduced from the Continent a few years ago. It is a large, handsome fruit, of sugary aromatic flavour, very handsome in shape, and beautifully coloured. The trees are of an upright close growth, and well adapted for garden culture, either as a bush or a pyramid. It is a great cropper, but does not keep long, being a September fruit or at its best early in October in late districts. There are other fruits quite as valuable at this season, such as

**TRIOMPHE DE VIENNE AND BEURRE  
MORTILLET,**

the latter a large, handsome, early October variety. This I have found in some gardens grown under the name of the new variety referred to, but it differs greatly; though a good Pear, it does not crop so well, and is later. It may be asked if these new Pears are not better than older ones. What value do they possess? I think I have explained that there is ample room for them in their season if good. What would certainly be most valuable to fruit growers would be varieties that would keep longer. After Christmas good Pears are very scarce, and at times even the late kinds do not keep so late as catalogued; they do not always finish well in diverse soils. The variety advised above does well on the Quince stock, and we find it one of our best varieties for cordons; this method is a good way to test the merits of any new Pears, as it may soon be grown into a fruiting size and the flavour compared. In hot seasons it is even earlier than I have described. Last year we gathered fruits the last week in August. It is a good plan with these early Pears to take a few fruits from the trees at intervals and place in the fruit room, as by this means a longer supply is maintained. Another very fine fruit is the new

**LE LECTIER,**

a hybrid raised in France, Williams' Bon Chrétien being one of the parents. This is well worth attention, the fruits being large, finely shaped, with rich melting flesh, and of splendid flavour. Fortunately, it is a late Pear, its season being given as January to March. So far I have never been able to keep fruits long after Christmas. This variety with me crops well and grows strongly, so that it needs ample space. Another excellent Pear that has come to the front of late years is

**PRESIDENT BARABE.**

Though it is not so large as the varieties noted above, it is of splendid quality, and in season in midwinter. It is of compact growth, and bears well. This was one of the best flavoured Pears noticed by the Royal Horticultural Society a few seasons ago when prizes were given for flavour. Another promising fruit is

**ST. EDMUNDS,**

a seedling from the celebrated fruit nurseries of Messrs. Rivers, Sawbridgeworth, and though full early to note its cropping qualities, its flavour is first-rate, and the season November. There are others, such as

**DR. JULES GUYOT AND BEURRE PERRAN,** well worth including in this list. The first-named is an early September fruit, the latter a midwinter variety. Both are good for flavour, and crop and do well in bush form. Dr. Jules Guyot is not unlike a large Williams', and is a compact grower on the Quince stock. In planting Pears for dessert I would never advise those who have space to plant a mere list of varieties, but those kinds in quantity that are known for their flavour and crop. There is no merit in having so many kinds;

indeed, the grower cannot maintain a regular supply, for though many kinds of fruits may be interesting, they are by no means profitable. G. WYTHES.

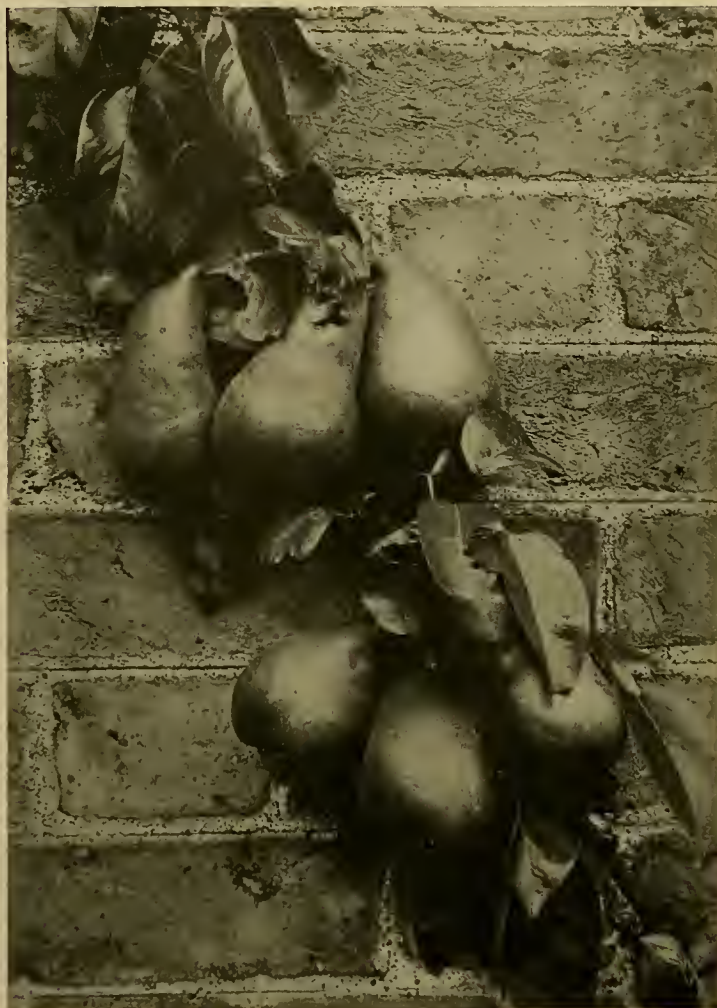
**RASPBERRIES  
IN AUTUMN.**

**AUTUMN** Raspberries when well grown form an important crop in a private garden, and are much appreciated for cooking, besides which they may, if the weather is really fine and warm when they are ripening, provide a welcome change in the dessert, and carry on the season of small fruits to the end of October. It is not uncommon to find a few rows of these double bearers, an unfortunate name by-the-by, as I hope to show, growing with the summer sorts, and from these some late dishes are got; but the greed which requires two crops from them defeats the object for which they are grown, as the first crop, borne on last year's canes, strains their resources and prevents the second crop, borne on canes of the current year's growth, from being anything but an average one. Why it is left for Raspberries to produce two crops while we are content with one of any other fruit is a mystery. The summer crop on the

autumn bearers, such as Belle de Fontenay, the best and finest, and the red and yellow Four Seasons, which are both very prolific, is not necessary, as the regular summer bearers should then be providing quite sufficient for the household.

My practice is to cut down the autumn bearers to the ground in February or March, and to thin out the new suckers which appear soon after sufficiently to allow them plenty of room. Any extra strong sucker which may appear well ahead of the rest on the stool should be cut away, as these in a cold season will keep on growing without showing fruits and rob the medium-sized growths. We generally begin picking here about the middle of September, and, as this is a late district, this means that they sometimes overlap the laggard fruits on the summer varieties. Last year our autumn crop was magnificent, and from about 40 yards run of canes we picked one day, about the middle of October, 18lb. of as fine fruit as one could wish to see. This year the promise is even better, though of course much depends on the weather; but every shoot is laden with fruits and blossom in all stages, and picking has been going on for some weeks.

Autumn Raspberries, like the summer varieties, enjoy liberal treatment, and the ground when being prepared should at least be deeply dug, and as the beds should last for many years some good manure from the stock-yard, together with any bones, burnt rubbish, and anything that will tend permanently to enrich the soil should be dug in. October and November are the best months for planting, and the canes should be from suckers that have appeared at some distance from the old stools, as these are most likely to grow away



PEAR MARGUERITE MARILLAT AS A CORDON (SHOWING FRUITFULNESS) IN  
THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT CHISWICK.

freely. Each year a good mulching of manure should be given in March or April, and in dry seasons on hot soils it may be necessary to give soakings of water, though in this respect the autumn bearers are more independent than others, as they have no old growth to support.

Shipley Hall Gardens.

J. C. TALLACK.

[We noticed the autumn Raspberries recently at Shipley bearing a quantity of clean, wholesome fruit. These late-bearing Raspberries are as important as the summer crop.—ED.]

**APPLES FOR COLD WET  
SOILS.**

THE planting season is now upon us, and with it one of the greatest pleasures of the garden lover—that of choosing new fruit trees. Anyone in the habit of going much to fruit shows must have noticed that it is rarely, if ever, that in a collection of Apples every variety is of the highest excellence as a specimen of that variety, and that there are always some of which one feels one has seen much better specimens before. This is because there is no soil which suits all Apples, however good an Apple soil it may be. Though Apples of a sort may be grown practically anywhere, really satisfactory fruit of most varieties cannot be grown everywhere, and the object of this article is to suggest certain sorts which may be grown in a satisfactory way under the conditions mentioned at the head of the article, and to warn the intending purchaser from courting certain failure.

People go to shows and see the most gloriously



coloured Apples beautifully arranged on dishes; they take down the names of those which most take their fancy, and, without giving any thought to the subject, order the trees from their nursery-men, only to find that some at least of the trees are a failure. Catalogues, too, are often somewhat misleading, as they say everything there is to be said in favour of an Apple, and do not mention that it will not succeed under certain conditions.

First, it will be well to warn the owner of a wet, clayey soil of the most likely pit-falls in planting Apples. There are certain varieties which everyone wants to plant, and two of the most common of these are Cox's Orange Pippin and Ribston Pippin, both rightly considered to be without a rival. Both would be certain failures in our case—the former cankering little less than the latter in many places—needing, as they do, a warm, rich soil. Another is King of the Pippins, rather overrated except at its best. It is very often a failure, as it, too, needs a warm, rich soil, as do also that famous show Apple King of Tompkins' County and that king of cooking Apples The Wellington, or Dumelow's Seedling, the latter of which especially cankers terribly in an unsuitable soil. Mannington's Pearmain, another gem, is scarcely less risky to plant, and the Old Nonpareil, like many of the very old sorts, is much inclined to canker. If a soil is unsuited to a particular variety it does not necessarily canker, as some sorts are not liable to it or very rarely fall a prey to it, but they may refuse to bear or to do so very sparingly, or the fruit may be much undersized. The Apples above mentioned are varieties that everybody would like to grow, as in Plums everybody wants to grow the old Green Gage, with which very few really succeed. It is one of the cases where discretion is the better part of valour.

Having started with this negative advice, let us come to practical matters. And here let it be insisted that whatever is said in this article as to sorts which will or will not do well in cold wet soils when a good sort, and one the intending planter likes is seen flourishing in a neighbour's garden, by all means plant it. Conversely, if a sort you would like to plant is seen to be a failure on a soil just the same as yours, by no means plant it unless you happen to know your neighbour has treated it wrongly.

#### DESSERT APPLES.

We will first deal with dessert Apples. Of these one of the most reliable is Brownlee's Russet, an ugly enough Apple it is true, of medium size, but very sweet and juicy and richly flavoured, and it is in season from February to May. It needs to be left on the tree as late as possible, as it possesses the russet tendency to shrivel, but if picked late and stored in a cool place it is very fine. It is most prolific, and will do well in almost any soil. Lemon Pippin is a good old Apple whose origin is lost in obscurity, but, under the name of the Quince Apple, it must have been grown for several centuries, though it is now rather falling into neglect in competition with the host of newer varieties. It is an excellent bearer, and when well grown is of a good size and rather handsome, being in shape and colour something like a Lemon. It is good for dessert from Christmas till Easter, and for culinary purposes throughout the winter. I have a standard tree growing side by side with a standard Cat's-head, and though the latter is, and has been for twenty years, badly cankered, the Lemon Pippin has not a trace of this disease, or more properly parasitic fungus, while the soil is low lying and near a river. A Queen standard planted near it ten years ago is catching the canker from the Cat's-head already. Court Pendu Plat is a good dessert Apple, of free-bearing habit, in season from February to April; not a pretty Apple by any means, either in colour or shape, but it has the great recommendation for low lying situations, where spring frosts are often so persistent, of being about the last of all Apples to come into bloom, and therefore often escapes a sharp May frost which destroys the bloom of the earlier flowering sorts. Baxter's Pearmain is a very hardy and vigorous grower, and very prolific, of medium size, greenish tinged with red, beautifully crisp and

slightly acid—a recommendation to many—and is in season at Christmas and for some time after. Another Apple in season at Christmas time is the Christmas Pearmain, which was introduced by Messrs. Bunyard in 1895, and seems likely to become a great favourite. It is an enormous cropper and free from canker, is of medium size and very pretty, having a scarlet cheek with russet markings, and is altogether a very desirable addition to the dessert at that season of festivities. Most of the Nonpareils are too delicate for wet soils, but there is one which will grow almost anywhere, and this is the Ross Nonpareil. It is of medium size, of general russet appearance, with a red cheek where it catches the sun. It is of delicious flavour, most prolific, and is good for dessert for pretty well six months—November to April. The above is a selection of dessert Apples all of greater or less excellence, and may all be tried on a cold wet soil with a reasonable hope of success. No early sorts have been given, but if any are wanted the Red Juneating or Joaneating, sometimes called Margaret, in season in July, and the Harvest Apple, in season in August and early September, generally succeed in any situation. Both are very old-fashioned Apples, seldom met with in orchards of more recent planting, and both are very good to eat direct from the trees. When we come to

#### COOKING APPLES

we have the old Keswick Codlin, a very early variety, being of a culinary size as early as July, though more properly in season in August and September. It is now going out of fashion, being superseded by newer varieties like Lord Grosvenor and Lord Suffield, the latter of which cankers so badly as to be out of the question for a damp soil. Early cooking Apples are not the best to plant, as in August and September anyone who has anything of an orchard has more windfalls than he has use for. A more useful sort is Bismarck, an Apple of recent introduction from the southern hemisphere rapidly rising into popularity. It is a large Apple, of good firm texture, almost equal to Wellington in that respect, and of handsome appearance. It is a very useful Apple during the midwinter months; the tree is a very prolific bearer even in a young state. An equally valuable Apple, though not coming into bearing so early, but a regular cropper when established, is the much advertised Bramley's Seedling, a very large Apple, in season the whole winter and spring. It is a tremendously vigorous grower, and seems likely to make magnificent standards, as it does very large bushes. It promises to be one of the great favourites of the future. A large variety of Apples for cooking is not necessary so long as we get a supply in good condition through the winter, but one more will be given suitable for our purpose, and that is the Winter Queening, or Sussex Duck's-bill, in season during the midwinter months, and fit for dessert if left on the tree late, when it becomes a good colour. It is not well known, being often ignored in some catalogues, but it is one of the best for the soil we are concerned with.

It is surprising how rapid has been the growth of interest in Apple culture, and the orchards of the future will not be accursed by such rubbish as many of them are to-day. It is just as easy to grow a good sort as a bad one if care is exercised in the selection, and, as shown above, there is a number of most excellent sorts so hardy that they will grow in the stiffest and most forbidding-looking clay soil. Generally speaking, when dealing with a wet cold soil, it is more satisfactory to grow bushes than standards, and these should be on the broad-leaved English Paradise stock. As every fruit grower knows, the Crab stock runs down almost perpendicularly into the subsoil, while the Paradise stock ramifies through the surface soil, having much more root fibre than the Crab. Hence a Crab stock running down into the clay either induces canker or rampancy of growth. Bushes need not necessarily be small garden trees such as are recommended to be planted 6 feet to 9 feet apart, which, though coming into bearing very early, still obviously can never produce fruit by the bushel; but they may be grown in a free manner, forming trees 10 feet

or 12 feet high or more, each stem forming a cordon furnished with fruit spurs from top to bottom. Such a tree may easily produce two or three bushels of fruit in a season, and, being low, there is not nearly so much loss through autumn gales, while it will produce such a crop as mentioned if it has been properly trained, by the time the standard would just be beginning to come into bearing. Growing on the bush system has the further recommendation of enabling the owner to make two pickings of the fruit, those on the sunny side of the bush being ready first, and as Apples on cold soils are always later than those on dry warm soils, it is a great advantage, especially with the later varieties, to be able to leave the Apples on the tree till they are fully matured, even if it is into November. As an instance of what may be done with bushes, the superintendent of the Royal Horticultural Society's Chiswick Gardens states that he has repeatedly picked 28lb. of Apples from a bush the second season after planting. ALGER PETTS.

## NOTES ON HARDY PLANTS

### CYCLAMEN EUROPÆUM.

**N**EARLY every week in autumn I see mistakes made in the flower notes of gardeners, who wrongly call the hardy autumn Cyclamen *C. europæum*. I know only one hardy autumn Cyclamen, and its right name is *C. neapolitanum* (Tenore). It used to be confused by botanists with *C. europæum* (Linnaeus), but Mr. Baker set the names right more than twenty years ago, and both the "Kew Hand List" and "Index Kewensis" have confirmed the distinction.

*C. neapolitanum* (Tenore), native of Southern Italy and Sicily, begins to flower in ordinary seasons about the last week in August. The leaves, which are large and pointed and marbled, follow in about a fortnight and last into spring. The colour of the flowers varies from crimson to white. It is naturalised in some places in England, and so included in the British Flora, though wrongly named *C. europæum* both by Sowerby and by Bentham. It is of the easiest cultivation, thriving in my garden in Cheshire in any soil or situation, and coming up from self-sown seed, which ripens in a year if spared by birds and mice. I see this species in many rocky shrubberies in North Wales permanently established, though only in private grounds.

*C. europæum* (Linnaeus) is a native of South-eastern France and Switzerland. It has smaller and round, glossy, dark green leaves without variegation, and produced before the flowers, which are shorter in the petals than those of the former species, and come in July, being generally over before those of *C. neapolitanum* begin. In spite of repeated importations from Aix-les-Bains, where it abounds, I have never been able to make it thrive, nor have I ever seen it in English gardens comparable for ornament and vigour with *C. neapolitanum*, though it has one advantage over that species in being very fragrant.

Llandudno.

C. WOLLEY-DOD.

### CROCUS SPECIOSUS.

#### A BEAUTIFUL AUTUMN CROCUS.

THE Crocuses most generally met with in gardens are the spring-blooming Dutch varieties, which make such a brilliant show in the borders with their golden-yellow, deep purple, pure white, and striped lilac. One cannot but admire their beauty and brightness, but the admiration is tinged with regret that other species flowering in the autumn and winter,



and equally lovely, suffer such unmerited neglect, for few and far between are the gardens in which they are met with. Of the autumn-flowering Crocuses, *C. speciosus*—the subject of the accompanying illustration—is the handsomest, and a large mass makes a charming picture towards the end of September and beginning of October, the petals of purple-blue, delicately veined, being set off by the glowing orange anthers. As the flowers are produced in advance of the leaves, which do not make their appearance until the spring, it adds materially to the effect if the bed is carpeted with some dwarf plant. *Ionopsidium acaule*, sown in the late summer, makes a pretty surfacing, its tiny lavender-white flowers contrasting well with the purple of the Crocus. Mossy Saxifrages, Thymes, Creeping Jenny (*Lysimachia Nummularia*), and other dwarf plants may be used for the same purpose. On grassy banks *Crocus speciosus* is very beautiful, the green of the grass forming an excellent setting to the flowers. There are three varieties of *C. speciosus*, viz., *C. s. Aitchisonii*, *C. s. transylvanicus*, and *C. s. globosus*, but, though beautiful, none of them are quite as lovely as the type. Although *Crocus speciosus* is the most attractive of the autumn-flowering race, there are several other pretty species well worthy of a place in the garden, since they and the Colchicums are invaluable for giving colour at a season of the year when the majority of plants have passed out of bloom. Of these the following are pleasing: *C. cancellatus*, *C. iridiflorus*, *C. hadriaticus*, *C. laevigatus*, *C. medius*, *C. nudiflorus*, *C. ochroleucus*, *C. pulchellus*, *C. Salzmannii*, *C. sativus*, *C. Tournefortii*, and *C. zonatus*. These bear flowers of varying shades of purple, violet, and lilac, often veined and feathered, and in some white and yellow are the predominating colours. While on the subject of Crocuses a passing reference must be made to the charming early-flowering *C. Imperati*, which expands its delicately tinted buff and lilac blossoms in the time of the Snowdrops.

S. W. FITZHERBERT.

#### COLCHICUM BORNUELLERI.

A FINE clump of this scarce Meadow Saffron has been much admired here this autumn. It is as large as the finest of the forms of *C. speciosum*, but opens lighter in colour, afterwards becoming a good purple with a white centre. *C. Bornmuelleri* does not open out so flat as *C. speciosum*, and this is an advantage in rainy or misty autumns. Though still expensive, it should soon be much cheaper, as it increases freely. I grow it here in moist peat and sand. It seeds plentifully, but I have not yet had seedlings of a flowering size.

#### ASTER COOMBEFISHACRE WHITE.

ASTER COOMBEFISHACRE is generally recognised as one of the best of our Starworts, though, like the most of these perennial Asters, it ought to be seen as a large bush to do justice to its beauty. It is one of my special favourites, and I was much pleased when Mr. Archer-Hind kindly sent me in

spring a small plant of its counterpart in habit, but of a different colour. This he informed me was called Coombefishacre White. It is now in bloom, and it appears certain that it will be a great acquisition, even in such a numerous family as in the Starworts, whose species and varieties give us such a multitude of forms. The flowers are exactly like those of the original Coombefishacre but of a fine white. When it comes into market and has attained a good size in gardens this new variety will become a favourite Starwort.

Carsethorn, by Dumfries, N.B. S. ARNOTT.

#### BESSERA ELEGANS.

THIS Mexican bulb is rarely seen. It has a brownish Brodiaea-like bulb, lax rush-like leaves 3 feet long, and wiry-looking stems 2 feet high, bearing umbels of rich vermilion flowers each three-quarters of an inch long, and averaging twelve to the umbel. It has the habit of Brodiaea coccinea or B. Howelli. The most interesting features of the flower are the intense vermilion colour of the segments, the purple filaments and styles which project beyond the perianth, and the arsenic-coloured pollen, altogether a curious com-



CROCUS SPECIOSUS: A BEAUTIFUL BUT NEGLECTED AUTUMN FLOWER.

bination of colours in one flower. The umbel is light and graceful, and the flowers are quaint, and on this account the plant is a favourite with those who care for bulbous plants, thriving colonies being occasionally found in obscure collections, but I do not think *Bessera elegans* is generally well known. It may be treated similarly to *Milla biflora* with good results.

#### SCILLA CHINENSIS.

THIS, or *Barnardia scilloides* as it is most frequently called, is a quaint little bulb resembling a Hyacinthus. It throws up several stems a foot high in August, September, and October, terminating in a pretty spike of pale pink flowers, rather densely packed together, but sufficiently open to show the ivory whiteness of the pedicels and that portion of the stem incorporated with the inflorescence. The unopened buds are tipped with green. It is free growing, perfectly hardy, and well adapted for the rock garden or border, but particularly for the rock garden, where it would help to sustain interest when many of its kindred are resting. It is a capital plant for naturalising, also for flowering in company with Colchicums, Crocuses, Sternbergias, &c. Its nearest ally is

*Scilla haemorrhoidalis*, a species at one time sent from Grand Canary, where it inhabits a limited area a mile or two north-west of Monte on a precipitous cliff.

G. B. MALLETT.

#### LITTLE-KNOWN GRAPES.

It is surprising what a great number of Grapes can be placed under this heading. I am aware that the majority are of little or no use for general cultivation, but still I think there are a few which, given a good trial, would compare very favourably with some kinds more extensively grown. A few of the best of a collection I have had under my notice for the last two or three years are mentioned.

*San Antonio*.—This produces fine bunches, somewhat resembling Madresfield Court in appearance. The berries are purplish black, large, and oval. Flesh tender, juicy, and sweet, with good flavour. Like Madresfield Court, it is a bad keeper.

*Chasselas Rouge* forms a medium-sized somewhat loose bunch. The berries are small, red, very juicy, and sweet.

*Chasselas Rose*.—This variety is remarkable for its excellent flavour, not unlike Muscat of Alexandria. Its bunches are large and compact, with large round berries. It has a pale yellow skin. Flesh juicy and sweet.

*Chasselas Napoleon*.—This is one of the best, and deserves to be more extensively grown. It forms a handsome bunch, is a free setter, and the flavour is excellent. Berries oval, of medium size, becoming pale golden when ripe. This was shown with success at the recent fruit show at the Crystal Palace.

*Chaptal*.—This is a white Grape, and not unlike Golden Hamburgh. It forms handsome bunches of good size and flavour, but its flesh is very soft.

*Black Frontignan*.—This is a good free cropping variety of excellent flavour. Its bunches and berries are

of medium size, round, and black. Flesh firm and juicy.

*Madeira Frontignan*.—This produces medium-sized compact bunches with reddish purple berries. Flesh juicy and sweet, and of good flavour.

*Meurthe Frontignan*.—This is of excellent flavour, which very much resembles the Muscat. It has medium-sized bunches, with large round berries, which are quite black. Its flesh is very firm and sweet.

*Salamon's Frontignan* is of medium size both in berry and bunch. It is a white Grape of a somewhat Muscat flavour.

*Black Monukka*.—This produces large bunches and berries, but the flavour is only third rate, and not to be recommended.

*Black Cluster*.—This crops very freely and is a good setter. Its bunches are rather small but very compact. Berries oval and black. Flesh firm, juicy and sweet, and of good flavour.

*Syrian*.—This is a very strong grower, and produces immense bunches. Berries large, oval, and pale yellow when ripe. Flesh very



firm and sweet. It is a good late Grape, and keeps well when well finished.

*Royal Muscadine.*—This does remarkably well out of doors on a south wall. It develops fairly large bunches. Berries large and round, which when ripe are a beautiful amber. The flavour is rich and delicious.

*Prunelae* is a fairly good black Grape, of medium size, and a good cropper. The flesh is firm and sweet, with a peculiar but not unpleasant flavour.

All the above are grown in cool houses, except West's St. Peters, which requires a high temperature to develop it perfectly.

E. HARRISS.

*The Royal Gardens, Windsor.*

### BUSH APPLE TREES.

THE Apple is the most important fruit grown out of doors in this country, and as in the case of other fruits the southern and warmer parts are the most suitable for its cultivation, but in the more northern and cooler parts with reasonable attention the results are frequently good. I believe that in warmer parts in favourable seasons well grown Apples bear fruit little inferior to that from the most favoured quarters of the world. The cooler parts of the country can never be expected to produce such large crops as in more favoured countries. The Royal Horticultural Society wisely considered this point at their autumn fruit exhibition at the Crystal Palace by having classes for special districts. From most districts well grown fruit has come at times.

The season for Apples is a long one, well ripened and carefully gathered fruit keeping well in a properly constructed fruit room all the year round, but a reasonable period is from August to April. After the stone fruit season in autumn, and till early-forced Strawberries are ready, few home-grown fruits are available, and it is then that good Apples are invaluable. Their colour is welcome on the lunch and dinner table, and with regard to wholesomeness they are unexcelled, whilst for cooking they

may be used in as many ways as any other kind of fruit. In the case of some varieties, the fruit as soon as it is large enough is ready for use, and over-cropped trees may be thinned with advantage.

A month from now (September 30) will be the beginning of the planting season, by which time wood and foliage of the trees will have matured. Before planting time ground on which trees are to be planted should be trenched 2 feet deep at the least. This may appear unnecessary, but the trees will show

the good effect of doing this thoroughly. A good trenching once will last a life time.

Bush trees in their earlier stages are grown and trained as pyramids by nurserymen, *i.e.*, grafted low down near the ground. The first year's maiden growth is pruned to within a foot from the graft, and the leading growth pruned each year to within a foot of that of the preceding year. Side growths are left 9 inches long. Such trees are excellent for planting after the third year. These side growths in after years, with others secured in the same way after planting, form the frame of the tree, from which growths multiply with age. Thinning out is done at pruning time to let light and air into the centre of the trees. I do not attempt to prune Apple trees, except espaliers, on the spur system, but rely on fruit buds being formed on branches. The branches are reduced in number by pruning to prevent overcrowding. Excessive pruning of Apple trees creates canker, while free growth prevents it. Bush trees have the advantage of being easily kept in position after planting by staking. They are convenient also to manage, such as freeing from insects, pruning, thinning the fruit, and gathering. Too much cannot be said for thinning. No matter what the shape of the tree, if more fruits are swelling than can be developed to a proper size, thinning should be done, and in any case deformed useless rubbish should be taken off. I do not think Apple trees ever looked worse in the month of June than they did this year. Fruit that escaped the spring frosts was

same conditions. So far as I know there is only one place where they will not thrive, and that is on grass; there I think no tree will fruit satisfactorily, as is so often shown by the miserable trees one frequently sees on grass land. It is condemned at the Woburn fruit farm.

G. NORMAN.

*The Gardens, Hatfield House.*

## THE WALL GARDEN.

### WALL GARDEN - MAKING.

#### I.—INTRODUCTION.\*

WALLS in the garden are often a necessity, not only on sloping ground, but sometimes even on fairly level spaces. The construction of such walls and the process of adorning them with all kinds of suitable vegetation is now generally termed "wall gardening." That in connexion with such work an enormous number of problems may occur, according to the varying conditions of position, requirements, climate, surroundings, &c., is only natural, and the object of this and the following essays will be to give practical hints and suggestions on this subject of wall gardening in its various forms.

A wall garden and a rock garden should not be confounded, nor should there, in my opinion, be any attempt at amalgamation, a step which could only end in failure from a picturesque point of view; in fact, I feel strongly convinced that both should be as distinct as possible from each other. A wall in its structure should be a wall plain and simple, however much we might vary its adornment by plants. But a rock garden should contain either natural rocks or what appears to be such; it should, in fact, be as irregular as possible. Regularity in a rock garden would be fatal to its purpose, *i.e.*, the representation of a piece of wild, rugged Nature. For the same reason, too much irregularity in a wall would spoil its nature,

and of all structures in the universe none are more deplorably repulsive in their effect than the so-called "rock walls," which resemble neither wall nor rock, but are bald and ugly.

When speaking of regularity in a wall garden, I do not for one moment wish to imply that the walls must always be in straight lines. On the contrary, it may often be most desir-

\* With this article we commence a series of essays written by Mr. F. W. Meyer, of Exeter, on the interesting subject of wall gardening. As these contributions are based on practical experience, we hope they will prove useful to readers of THE GARDEN.—ED.



BUSH APPLE TREES IN FLOWER IN THE LANGLEY NURSERIES OF MESSRS. J. VEITCH AND SONS.

stunted and much bruised. The foliage, too, was crippled with insects and mildew, but by removing the deformed fruit and reducing to one where they were in clusters the result is on many trees a useful crop. The rainfall of August and September much assisted them. Some gardeners say they "do not have time to thin; while they would be thinning weeds would be growing." I manage to thin Apples, and get at the weeds, too.

Bush trees can be grown in all positions where standards would succeed, and under the



able to make them in curves, but their general structure should be regular and uniform in all but the planting, which will be found most effective when varying as much as possible.

The accompanying illustration shows a very striking case in point. It was prepared from a photograph which, by the kindness and courtesy of Sir Warwick Morshead, I was permitted to take at Tregaddick, in Cornwall. Here the ground immediately in front of the house slopes to such an extent that it was absolutely necessary to build a curving, retaining wall to support a plateau sufficiently large to allow carriages to turn with ease and without danger. It is a dry wall built of granite, and sufficiently deep to allow for a narrow piece of lawn to slope inwards, *i.e.*, towards the house, between the gravel plateau and the wall itself. The joints are filled with soil instead of mortar, and how well plants delight in just that kind of position may be gathered from the present illustration and also from a previous one published in connexion with my notes on wall gardening in September (see *THE GARDEN*, September 20), which depicts another portion of the same wall. In the present illustration a luxurious group of fine Carnations (ten years old) fringes the top of the wall, while lower down are Ferns, Alyssum, Antirrhinum, Sedum, Eschscholtzia, Arabis, Valerian, &c., in great profusion.

#### ADVANTAGES OF A WALL GARDEN.

Rock gardens and wall gardens may be said to supplement each other. It often happens that a position most unsuitable for the one is at the same time most suitable for the other, and *vice versa*. Thus in a small formal garden, where rockwork would be out of place, the owner need not on that account give up the idea of growing such of the choice mountain plants as would require the support of stonework, but he might construct a wall garden instead, in which the majority of such plants would thrive admirably if well chosen and properly planted.

If the formal garden is bounded by retaining walls, forming either a terrace or a boundary, there is no reason why such walls should not be made to yield a brilliant display of colour, and by having an eye to successive effects they might be made attractive practically all the year round. Many alpine plants from high altitudes, and even some of the choicest gems of the mountains, will succeed in this position between the joints of the stones better than anywhere else.

Another most important advantage is that if our favourites are planted in a wall we may have them under our more immediate notice, as in the raised positions they would be nearer to or even on a level with the eye. Then, again, in the case of overhanging plants, their prostrate or pendent shoots can never be seen to better advantage than when gracefully suspended from a wall. Even plants which

we are generally accustomed to grow on level ground, as, for instance, the Carnations shown in the illustration, gain considerably in effect by such an elevated position. On level ground the hanging down of the shoots of Carnations becomes a nuisance, as they have to be tied to sticks, &c., but the Carnations shown in the illustration look more graceful on the wall



PORTION OF WALL GARDEN IN THE GROUNDS OF SIR WARWICK MORSHEAD, TREGADDICK, NEAR BODMIN (NOTE THE CARNATIONS IN FLOWER ON TOP OF THE WALL).

than could possibly be the case anywhere else. Moreover, their flowers are at the exact height of the average eye, and their perfume can be enjoyed without stooping or even without lifting the blossoms, an advantage which should not be overlooked.

Still another advantage of wall gardening is a maximum of effect at a minimum of cost. Building a wall is easier and cheaper than constructing a good rock garden, and the plants growing in the wall are easily kept in order, requiring but little attention.

#### WALL GARDENING AND ROCK GARDENING COMPARED.

Rockwork, when really well arranged, may be made a most charming feature in the garden, but when erected by incompetent hands, without regard to good taste or to Nature's simple laws, becomes repulsive. If the constructor of such rockwork does not possess the ability of imparting to his work that natural appearance without which no

rock garden could possibly be a real success, it would have been better by far had such rockwork never been attempted, but given place to simply a plain wall, which could have been erected at less than a quarter the cost by an ordinary mason or even intelligent labourer. It does not follow that a wall garden may be made a success in any position. On the contrary, it would be sadly out of place in the midst of very irregular or undulating surroundings, especially if it be a straight wall, and if this should intercept the view from any important position as seen either from the house or from such parts of the garden as would be much frequented. In such a position a wall garden would be even worse than rockwork within a formal garden.

#### THE MOST SUITABLE SITE FOR A WALL GARDEN.

We may, broadly speaking, accept the principle that a wall garden will be at its best only when constructed on more or less regular lines as a terrace wall, a boundary wall, or a similar position. There may be exceptions, of course, but on the whole a site connected with formal gardening of some kind will be found to be best, even if the formality is confined to the immediate surroundings of the house only. It very often happens that owners of gardens have long straight borders only 3 feet to 5 feet wide running parallel with a straight walk more than 100 feet in length, and that they desire to use such border for rockwork. Now in such a position even the most skilful artist in rock building will fail to produce work which would represent natural rock in an entirely satisfactory manner. The space would be too narrow in proportion to its length to admit of the necessary variation so essential to a natural appearance. But for a wall garden such a site would be just right, in fact nothing could be better. If it should be desirable to devote the entire border to

alpine or other mountain plants, we may build a wall which would appear as if it had natural rock for its foundation. This is easily effected by scattering a few rough weather-beaten stones of different sizes over such a border, and if skilfully placed and half buried in the ground these stones will convey the idea that the wall was built on the top of natural rock which is cropping up through the surface here and there but reaches down to depths unlimited below the ground.

This would be perfectly natural in appearance, and in such a case we might combine rock gardening and wall gardening with success; but if the reverse should be the case, *i.e.*, if—as is unfortunately still too often done—rockwork should be arranged on the top of a wall the result would be ridiculous, from the fact that such a thing could not possibly occur in Nature.

Elmside, Exeter.

F. W. MEYER.

(To be continued.)



## GARDENING OF THE WEEK.

## KITCHEN GARDEN.

**S**ELDOM do we see the crops of winter vegetables looking better than at this season, especially those on light dry soils, and the past spell of dry weather has done much to improve matters even in the low lying districts and on stiff land. Providing we are favoured with a fine autumn to enable the growth of all kinds of green vegetables to become well matured before we experience any very severe weather there should be abundance of most things.

Turnips are particularly good this season, the dull showery weather suiting them. The earlier sowings should be lifted immediately they are of fair size and stored for use as required. Guard against keeping them too close together. The right method is a layer of bulbs and a layer of sand or cinder ashes, and place them under a north wall.

Keep the soil frequently hoed among successional crops, and the very late sowings should

moist for about a week or ten days before placing them in heat. The warmest end of the Mushroom house should suffice for this.

## THE FRAME GROUND.

All well ordered gardens should contain a place, sheltered, but exposed to the south, for the protection and forcing of the various kinds of vegetables. Where a succession of high-class produce is required it is an absolute necessity. Now is a good time to clear up and make one's plans for the following year. The old hot-bed should be turned over, and this makes excellent material for nearly all crops, both in the kitchen and flower garden.

The frames and lights should be well washed and repaired, and in a very short time fresh material for the new hot-beds should be prepared and made up for starting the various crops, one of the first being Asparagus. There is no reason why this delicious vegetable should not be had by the use of fermenting material and cold frames from November till the time comes round for cutting in the open. Attend to the blanching of Endive, both the broad-leaved and curled varieties, also Lettuce, but keep it well tied

no water will be necessary at present. Plunge the pots in cocoanut fibre, with a bottom heat of about 65° or 70°, and cover the bulb with a flower-pot. The American varieties are imported in December and January.

## CANNAS.

These are useful for winter-flowering, and are valuable as decorative plants for rooms. Now is a good time to put in sucker cuttings for that purpose. We usually obtain at this season strong sucker growths from plants growing outside in beds. Fill 4½-inch pots with a compost of loam, leaf-soil, and sand, with an addition of dried horse manure. Place the cuttings singly in the pots, making the soil quite firm, and give good drainage. They should be then well watered and placed in a shady and warm position in the propagating house, where they will root readily, after which they should be gradually hardened off, for the more sturdily they are grown the more serviceable plants will they make. When the pots are well filled with roots, liberal feeding is of great advantage.

## CINERARIAS.

The earliest batches of these that are being grown to flower in November and December should be removed to a cool and airy house. Assuming that the pots are well filled with roots weak liquid manure should be given. Later batches should be potted into their flowering pots. Plants required for house decoration should be grown in small pots; the foliage will be firmer and the growth more woody, consequently they will stand rougher usage than plants in larger pots with luxuriant growth. Plants in small pots need more care in watering.

## BEGONIA GLOIRE DE LORRAINE AND ITS VARIETIES.

These useful winter-flowering plants are now growing freely, and will require tying and slinging to a centre stick. I prefer green raffia for slinging, as by using this the ties are almost invisible. This plant requires liberal treatment when the pots are full of healthy roots; it is surprising how much feeding it requires. Clay's Fertilizer and cow manure alternately we have found most satisfactory. The same remarks apply to other winter-flowering Begonias; they all thrive in a warm moist atmosphere.

## NERINES.

As the flowering spikes are being pushed up light feeding should be given them. Give water at the roots with great care, as excessive moisture must be avoided or disaster will soon follow. Light feeding should be continued

during the growing season. When in full flower Nerines are of the most beautiful of greenhouse bulbous plants, and flowering as they do during autumn and winter deserve to be more largely grown.

Wexham Park, Slough.

JOHN FLEMING.

## INDOOR GARDEN.

## FERNS.

At this season less atmospheric moisture must be given and the plants frequently overhauled and all dead and decaying fronds removed. Allow plenty of space between the plants, as this will keep damping of the fronds in check. Plants that have been growing all the season, and have their pots well filled with healthy roots, should be given a stimulant. Weak liquid manure made from Clay's Fertilizer or guano we have found most beneficial. Water at the roots must be given sparingly during winter. Many of the Adiantums that have been used in the cool houses should be brought back into warmer quarters.

## TUBEROSES.

The African bulbs are now coming to hand and may be potted singly in 4½-inch pots. They like a compost of fibrous loam and leaf-soil, with sufficient sand to keep the soil porous. The compost used should be in a moist condition, and

## THE FRUIT GARDEN.

## EARLY VINERIES.

VINES that are to be started by the end of November should now be quite matured, and if they have not yet been pruned it should now be done. Thoroughly cleanse the structure by washing woodwork with soapy hot water. Lime-wash the walls and take the opportunity of repainting if needful. Once pruned the Vines should be relieved of loose bark, but in doing so bear in mind that severe peeling is hurtful, as it exposes the rods to the weather. The Vines should also be well cleansed by carefully washing them with a half-worn spoke brush with a moderately strong solution of Gishurst Compound and soft water used whilst hot. This, if thoroughly worked into the crevices of the epurs, &c., will eradicate red spider. Afterwards remove the surface of the border, which it is assumed for early forcing at least is placed inside, and top-



A PRIZE DESSERT TABLE AT SHREWSBURY FLORAL FETE, SHOWN BY MR. G. MULLINS, EASTNOR CASTLE GARDENS.

be thinned, but left about as thick again as is generally advised. Apply frequently slight dressings of soot and a quick acting manure, and keep the soil stirred often with the Dutch hoe. The late batches often prove to be invaluable after a severe winter, as by drawing a little soil over the bulbs at a later period these will generally come through quite unharmed.

Seakale has made splendid growth this season, but the crowns are very late in ripening. No time should be lost in preparing the first batch for forcing, as Seakale does not start away freely unless a short season of rest is given to it. The foliage should be removed as it shows signs of decay, the roots lifted and left exposed on the ground for a few days, taking up sufficient only for the time being at this early season. A fairly strong heat will be necessary to start it into growth, the crowns should be syringed two or three times daily, and all air and light excluded. I have found that excellent kind, Lily White, forces better than the ordinary variety.

Rhubarb should be treated much in the same way, except that this requires even a longer rest. Choose an early variety. The old foliage should be cleared away, exposing the crowns as much as possible some days before lifting. The roots should be taken up carefully, but these are best kept

during fine weather. Good salad is generally much in request at this season of the year.

E. BECKETT.

Aldenham House Gardens, Elstree, Herts.



dress it with fresh compost enriched with a suitable fertiliser. Keep the house perfectly cool until required to be closed for starting the Vines.

#### PEACHES AND NECTARINES.

Early trees that have matured their wood and dropped their leaves should without delay be prepared for next season. Untie the branches and thoroughly cleanse the trellises, woodwork, walls, &c., of the house. If the trees have been treated as advised in previous calendars they will be well furnished with fruitful wood, and no pruning will now be required, but should young wood have been too thickly laid in it should be thinned by cutting away the weakest growths sufficiently to allow the best bearing wood being trained from 6 inches to 7 inches apart. The wood if crowded cannot mature properly or become studded with good fruit buds. Though it is too late now to wholly remedy mistakes of this description that were made during the growing season, a repetition of the evil should be guarded against. Carefully wash the trees with a weak solution of Gishurst Compound, XL All Insecticide, or any other approved insecticide, but in doing this it should be remembered that the buds of these fruits are injured by powerful dressings. In training the trees distribute the bearing growths equally over their entire surface, so that a regular crop of fruit may be expected and an even supply of young wood ensured next year. Complete the preparation by removing with hand forks the immediate surface of the borders, which, if the trees are satisfactory, will be filled with fibrous roots. Give a top-dressing of fresh compost formed of sound loam, fine mortar or old plaster rubble, wood ashes, and bone-meal, made quite firm, and lightly mulch with short litter.

#### LATER TREES.

About this time—i.e., when the foliage is matured and falling—is the most favourable for rectifying defects of any kind relative to the roots of the trees or their borders. In the case of trees that are making gross, unfruitful wood, carefully remove the soil from amongst their roots, and after slightly shortening any very strong ones, relay them in layers near to the surface of the border. Embrace this opportunity of improving, if it is desirable, the condition of the soil by adding suitable ingredients to suit the trees. Use the compost in a fairly dry state and make it quite firm, and after mulching the surface of the border give it a good watering to settle the soil about the roots. Any planting that is anticipated should be done as soon as the trees are fit for lifting. We make a practise of purchasing trees to take the place of those declining in health a year or two previous to uprooting the condemned ones, and plant them against an outside wall to get established and in a fruitful state before placing them indoors. It will, of course, be understood that trees treated in this manner have gradually to be prepared for early forcing. Amongst good varieties for growing under glass are, of Peaches, Amsden June, Hale's Early, Early Grosse Mignonne, Crimson Galande, Belle-garde, Dymond, Noblesse, Royal George, Violette Hâtive, Barrington, Raymaeker's, Gladstone, Exquisite, and Sea Eagle; of Nectarines, Cardinal, Early Rivers, Lord Napier, Dryden, Stanwick Elruge, Pitmaston Orange, Humboldt, Pine-apple, Spenser, and Victoria.

THOMAS COOMBER.

*The Hendre Gardens, Monmouth.*

#### FLOWER GARDEN.

##### WILD GARDENING.

WHERE the delightful practice of wild gardening is indulged in the present time will be a busy one in preparing pictures for the spring months. In the orchard, especially the orchard that is retained because of its picturesque appearance, whose trees are preserved because of their green lichen-covered trunks and bright ornamental fruits rather than for their economic value, many desirable bulb effects will suggest themselves. Natural informal stretches of Snowdrops, Crocuses, Narcissi, and Tulips to suc-

ceed one another, with here and there groups of blue Apennine Anemones, Chionodoxas, Fritillarias, and Camassias cannot fail to appeal to and render one enthusiastic. In grouping bulbs the chief idea should be to avoid hard lines of demarcation between the colours, and at the outskirts to let them disappear quietly and not abruptly into the space around. To obtain a natural grouping one must have the grass as short as possible, and then, having determined the shape and size of the groups, throw the bulbs in large handfuls in the direction the effect is desired; men follow with trowels and plant them exactly where they have fallen. By this method stiffness and formality are avoided. Where the bulbs are grown the grass should be mown quite closely, so that in the spring the flowers can be seen to the best advantage. For growing in the deep shade of trees there is no bulb better than the Wood Hyacinth or Blue-bell (*Scilla nutans*). For similar places the Grape Hyacinth (*Muscari botryoides*) has also much to recommend it. In the deep shade and shelter of evergreen Oaks there are also colonies of beautiful Cyclamen which have been successfully naturalised. Before planting the tubers the ground should be improved by manuring and enriching with fresh soil, and though the bulbs enjoy moisture at the root they cannot thrive on wet sodden land, so that good drainage is essential. Unlike Cyclamen persicum the tubers of all the hardy species must be planted fairly deep below the surface.

#### THE IVY-LEAVED CYCLAMEN (*C. HEDERAEFOLIUM*)

is one of the best for naturalising, because of its pretty foliage; it is attractive during the winter and spring months, while in the autumn its flowers, which usually are profusely borne, are delicately beautiful. The round-leaved Cyclamen (*C. Coum*) is adapted for planting in the shade of trees, and also *C. europæum*, which is distinctly fragrant. *Camassia esculenta* is a splendid bulb for naturalising, and a bold group of it in flower in June is a fine sight; the flowers are a beautiful deep blue colour and well above the grass. In selecting a habitat for it in some deep rich soil it should be borne in mind that the grass about it cannot be cut until late in summer. Such things as Crocuses, Narcissi, and Tulips ripen off comparatively early, but the *Camassia* does not.

While preparing these delightful features of flower life in the wild parts of the garden and the orchard one should at the same time note old trees and rough stony bits that would be improved by some suitable creeper or climber. Clematis Flammula or Polygonum baldschuanicum festooning and hanging in a graceful mass from some old gnarled Apple tree is an object of great beauty in the late autumn months, and one that never fails to



GRAPE MUSCAT OF ALEXANDRIA.

elicit admiration. A rough bank or stump of tree, by covering with Honeysuckle or Vine, can be made most attractive.

*St. Fagans.*

HUGH A. PETTIGREW.

#### GRAPES FOR EXHIBITION.

FEW seasons in my recollection have furnished better opportunities for judging of the merits of black Grapes for exhibition than the year now drawing to its close, and few seasons also do I recollect where the conditions conducive to the perfection and finish of the Muscat and other white Grapes have been more unsatisfactory. This is a clear proof, if proof were needed, to show that black Grapes can be grown to perfection of colour and bloom under cooler conditions and in the absence of less light and sunshine than can the Muscats and other light-coloured Grapes, for the latter, with very few exceptions, have not been conspicuous during the past year for high quality and finish.

#### BLACK GRAPES.

Amongst black Grapes for exhibition purposes Madresfield Court, I think, stands prominent. Those who succeed in growing this variety to perfection as to size of bunch and berry, colour and bloom, may confidently rely on favourable notice at the hands of the judges whenever and wherever it is exhibited.





GRAPE MADRESFIELD COURT.

Muscat Hamburg follows very closely in order of merit. It is even more difficult to grow and finish to perfection than is Madresfield Court, and in consequence few growers attempt its cultivation. All the more credit is due to growers who are able to place such splendid samples of this Grape on our exhibition boards as Mr. Goodacre, for instance, has done this year, and notably so at the Shrewsbury show. Mrs. Pince is an excellent and valuable black Muscat Grape. It succeeds well even in an unheated vinery, but it is, unfortunately, almost impossible to colour it well. Yet this can be accomplished, as is occasionally evident at our fruit exhibitions, and notably so at Shrewsbury this year in the fruit Coronation class for Grapes, forming, as this variety did, one of the best dishes in Mr. Lunt's collection. The gardeners of the past generation have more or less failed in the culture of these two splendid Grapes, Muscat Hamburg and Mrs. Pince. Let the rising generation find the reason why, and help by this service to secure to fruit lovers the enjoyment of certainly two of the highest quality Grapes in existence. Coming now to the more prosaic varieties of black Grapes, the first place must be given to Black Hamburg. When well grown this is in many respects the most useful of all Grapes. Of this there are at least three distinct varieties,

namely, the Frankenthal, the Mill Hill, and the Black Hamburg. The latter is represented by the well-known Vines at Hampton Court and Cumberland Lodge. For exhibition purposes the Frankenthal, in my opinion, is by far the best. It is large of bunch and of berry, and carries a colour and bloom when properly finished that are exceeded by few Grapes.

#### LATE VARIETIES.

Of late varieties of black Grapes for exhibition, Alicante perhaps ranks as high in favour as any. It is easy of culture, of fair quality, shapely bunch, good sized berry, and usually carries a lovely bloom. Gros Colman runs the Alicante very close in order of merit in the opinion of judges; indeed, when well grown it would take precedence in the opinion of some. Gros Maroc, in consequence of the size of its berry and the wonderful colour and bloom it puts on so early in the season, is a useful variety to grow for exhibition, especially for the late summer and early autumn shows. Alnwick Seedling is one of the handsomest of all late Grapes, but in consequence of its quality being only second or third-rate, and the uncertainty of its setting its berries well, it is not often grown. Amongst black Grapes of recent introduction, Appley Towers is a variety that has secured general recognition as being a useful sort. It has been extensively and successfully exhibited this year. It is somewhat of the type of Alicante. I may be permitted to remark here that I have too frequently noticed in judging Grapes the great number of points of excellence lost to exhibitors by defective thinning of the berries, and this is especially the case with the large black Grapes. The fault is nearly always that of leaving too many berries on the bunch, and many points of merit are lost in consequence.

#### WHITE GRAPES.

Of white Grapes for exhibition Muscat of Alexandria is undoubtedly still the best, and when grown and finished to perfection it is not too much to say of this Grape that it is not only the most popular, but that it is the best of all Grapes with regard to quality, richness of flavour, and beautiful appearance, yet how seldom is this Grape seen at its best. Not six growers in ten give the fruit time to properly ripen before it is cut. Some of the best finished Muscats I have seen for a long time were exhibited at the recent show of the

Royal Horticultural Society at the Crystal Palace. The bunches were of average size, berries well developed, the colour and quality perfect—a lovely transparent amber. Duke of Buccleuch ranks very high as an exhibition Grape, and is one of the most valuable to have in a large class. Golden Champion runs it very close, but the former is the more imposing Grape. A variety that has come to the front conspicuously this year at our exhibitions is Chasselas Napoleon. The bunch is long and tapering, berries large, and when well grown of noble appearance. As an exhibition Grape in this section it is likely to prove in the future a strong rival to Buckland Sweetwater and Foster's Seedling. Golden Hamburg, also in this section, is a variety that should not be lost sight of. It is of easy culture, much like the Black Hamburg, and when well finished is one of the prettiest and sweetest of Grapes.

OWEN THOMAS.

### ROUND ABOUT A GARDEN.

#### THE NEGLECT OF WHITE.

THE more one sees of princely gardens the more convinced one grows that the great fault of the expert horticulturist is his neglect of white in the arrangement of colour. Wherever a combination of beautiful tints fails quite to satisfy the eye it is almost always white that is wanting, and where the brilliance of a flower-bed positively distresses, white would have been the remedy. Plenty of white Tulips and white Hyacinths are the secret of a lovely spring garden. You can have it as bright as you like with reds, yellows, and blues, or you may play subtle chords of softer shades; but white is the natural accompaniment of all colour music, and a flower-bed gains as much from the addition of white flowers as our pictures from the fair white margins in which we frame them.

#### SIMPLE COLOUR EFFECTS.

For producing the simplest effects white is indispensable, because there are no combinations of two colours only which satisfy the eye, unless white be one of them. You may travel far and inspect many summer gardens without discovering any flower-bed of blended hues which is so completely lovely as one filled with white from edge to edge, with scarlet-carmine flowers—there are some Begonias which serve the purpose admirably—dotted about in it. Among your spring flower-beds, again, arrange the rest how you like, but try the experiment of filling one entirely with dark blue and white. You will find that when your eyes range round the array of many colours they always return to rest upon this bed with genuine pleasure.

#### FOR A SPRING BORDER.

Another fine but simple effect of white is best seen in the spring garden also, if you plant the bulbs of white Narcissus thickly among blood-red Wallflowers, edging or surrounding them with a belt of blue Forget-me-nots. The contrast between the pale blue of the Forget-me-not and the deep red of the Wallflower is as accurate as that between blue Lobelia and orange-crimson Nasturtium; and the white Narcissus adds to one combination exactly what the white Marguerite gives to the other, the one touch needed to make the harmony of colour complete in itself. This, indeed, is the real value of white that, being itself conspicuous for the lack of all colour, it gives the coloured flowers with which it is placed the full credit for their lovely hues. It is the ground level, so to speak, of colour, and,



just as you cannot realise the height of trees unless you can see the ground from which they spring, so you cannot fully appreciate the full extent of a colour's beauty unless there is white alongside to measure it.

#### A PLEASING MIXTURE.

Fortunately almost every flower has its white variety—as though Nature foresaw the great demand which there ought to be for white in gardens—and you can almost always rely upon plenty of pleasure from mixing together any two kinds of very variable plants, the white being always numerous enough to prevent any clashing of tints. Thus one of the prettiest effects for late spring and early summer may be made by filling a flower-bed with dwarf Snapdragons raised from good mixed seed, and planting mixed Spanish Iris bulbs freely between them. The result will be a surprising medley of harmonious colours in such endless variety that you never tire of looking at its kaleidoscopic combinations, without a touch of discord anywhere.

#### THE USE OF DULL COLOURS.

We neglect dull colours in flowers—greys, lavenders, and browns—almost as unreasonably as we stint the garden of its necessary white. Most of the dull flowers are beautiful in themselves or sweetly scented; but their value in a garden is chiefly as foils to brighter neighbours. Look at a carmine flower by itself and then place it with the grey of any woolly leaves, and you will see it go up several times in colour; add white and you have a delicate and perfect harmony. The same carmine and white again make a pretty contrast in themselves; but add the rich brown of, say, *Calceolaria* and the brilliance of the combination is doubled, though you have only added a dull colour to it. In the same way to discover what a grand colour true scarlet is, give it lavender-grey as a foil and add white to isolate the contrast. But I have lectured more than enough about colours.

E. KAY ROBINSON.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

#### STREPTOSOLEN JAMESONI.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been recently asked advice respecting this lovely greenhouse plant. From enquiries which have reached me at various times it would seem that there is some difficulty in getting it to flower freely, and indeed this was once the case with me. No plant is so easily grown. It roots as readily as a *Coleus*, and will quickly reach 4 feet or 5 feet in height if allowed to do so. Any ordinary soil seems to suit it, and delights to grow in the open air during the summer months; in fact, if placed alongside the ranks of *Chrysanthemums* and accorded the same kind of treatment, without the pinching, the best results may confidently be looked for. If, however, good flowering plants are required for the Easter or early summer display do not pinch, but simply let the plant grow in its own way, giving the leaders the support of a neat stick. It is one of the grossest feeding plants I am acquainted with. The pots are soon packed with white roots, when it will require a very large supply of water and frequent doses of liquid manure. I have seen specimen plants of it which, of course, had been brought about by pinching, but this was not carried on as one would do in the case of *Fuchsias* and *Coleus*; plants expected to flower, say in May or June, should not be pinched later than the previous autumn or some time before Christmas. In order to allow the plants to make well matured

growth I question whether bending and tying into the desired shape would not produce better results. However well plants may look grown in this way, they are far better when allowed to grow naturally and then taken to the greenhouse and tied up to the rafters or wires under the roof glass. The growth must hang loosely over the paths. In this way there are few plants to equal it. These, hanging over side stages filled with well flowered plants of its relative *Browallia speciosa* major, have a very fine effect. It is always admired by those visiting these gardens. I strongly advise growing the plants naturally, and under no circumstances should they get dry at the root or the flower buds will fall wholesale.

THOMAS ARNOLD.

*The Gardens, Cirencester House.*

#### PRUNING PEACH TREES.

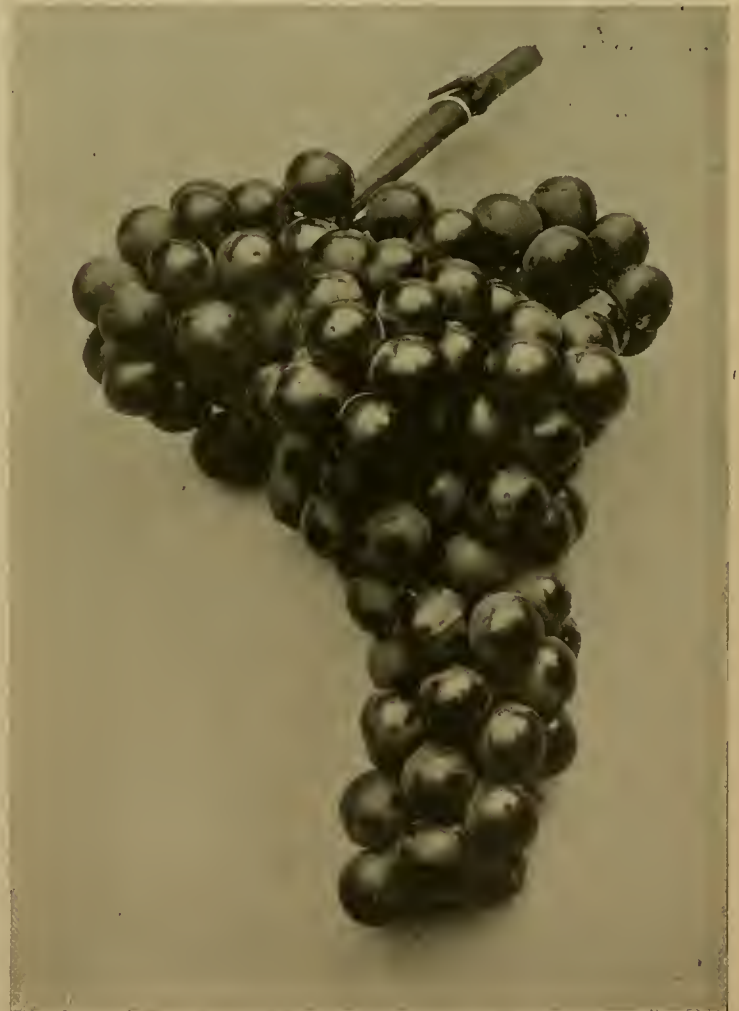
[TO THE EDITOR OF "THE GARDEN."]

SIR,—In pruning Peach and Plum trees should the new shoots with yellow pith be cut off, as one would do in the case of *Roses*? Is yellowness of pith a sign of the shoot being injured?

FENMAN.

[In pruning Peaches leave the best ripened wood, but remember that the fruit of the Peach and Nectarine is produced on the new wood of the current year's growth. You cannot prune the Peach in the same way as the *Rose*. The Plum differs from the Peach in that the fruits are borne on spur growths, that is, growth stopped the previous year, or even a longer period, to say four to six buds. Any shoots not needed for extension are stopped in the growing season, and are then termed spur growths, and in the case of Plums they fruit freely. By the term shoots for the extension of the tree we mean young trees that one wishes to extend, and shoots such as terminals, or those at the sides that have room to develop. On the other hand, the above advice refers to wall trees. In your question you do not say if your Plums are on walls; we presume they are. Of course the Peaches are, though the Peach is grown as a bush in favourable situations. If the Plums are bush or standard trees, cut out useless growth, that is, to thin the trees, but gross or strong wood in Plums is not fruiting wood. It does not always follow that yellow shoots as you describe are not well matured, as in many cases the wood is shaded, and then it cannot ripen. If the wood is firm and the buds prominent we do not advise its removal, unless not required for extension. With regard to shoots with yellow pith, much depends upon the size and where the shoot is placed. Our advice is to thin out, leaving plenty of new wood for next season's fruiting, and in so doing cut away the worst placed and unripened wood. More good follows thinning in the late summer than severe

pruning in winter, as the wood by so doing gets better matured, and by early thinning and summer stopping yellow shoots will be few in number. The Plum to be profitable must each season have a good lot of young wood for fruiting. This applies equally to walls, as unless new wood is encouraged the crop is poor. You must not rely upon old wood in Plums for a crop. We now come to the pruning of the Peach. This is different, as few fruits are produced on what is termed spurs. The amount of wood to leave for fruiting should be decided in early summer, as with wall trees it is necessary to disbud freely in May and June, that is, to leave the best placed shoots at the base of the parent shoot and the shoots just beyond the fruit and the terminal one. Then when the fruits are gathered the shoots that have borne fruit may be cut out. This leaves the two good ones left at the base, which have been tied or nailed to the wall as fruiting wood for next season. You see by this there is always a system of extension going on, and in the case of main shoots or terminals or side growths to fill space these must be left from the start. You may shorten back now but not remove; in fact, in the case of the Peach, the more you extend the trees the better, but do not crowd the centres. The Peach grown as a bush needs different treatment. Cut out old wood that has borne fruit, thin out weak shoots, and do not crowd in any way. If the trees are large enough shorten terminal shoots and thin the centre. Far better thin trees during growth and remove a shoot misplaced than cut hard in winter; the latter often causes gumming and canker. Young trees are ruined by severe pruning. We advise extension.]



GRAPE GROS COLMAN.



## CUTTING THE FOLIAGE OF HARDY PLANTS.

(TO THE EDITOR OF "THE GARDEN.")

SIR,—I am much indebted to Mr. Arthur Goodwin (page 203) for his answer to my previous note on this important subject, and I had hoped that others would have expressed their views. Now hardy plants are so generally grown many find the question of cutting off the foliage and when to do it a vexed one, and I hope the question may be well discussed, for I feel sure that many plants are much harmed by injudicious treatment with regard to their foliage. I am pleased to note Mr. Goodwin agrees in the main with me on this point. Perhaps I may be permitted to point out that this question of cutting down needs some explanation, for there is a difference of opinion as to what cutting down is. One may think it sufficient to cut the stems just below the flowers and where the main leaves begin, while another would say this was only partial, and the stems should be cut off close to the ground.

I am quite convinced from experience that cutting off the stems half-way down, and thus giving extra food to the plant, will induce new growth and a crop of bloom in late summer.

Since Mr. Goodwin's letter appeared I have had an opportunity of seeing large borders of hardy plants at Didlington Hall, Norfolk. Here one border is 430 yards long, and at Hackwood Park, Basingstoke, there is a border on both sides of the central walk in the kitchen garden 280 yards long. In both places many kinds are grown, and I noticed that Delphiniums, Rockets, &c., were only partially cut down. Upon asking why the stems were not cut close to the ground, I was told that it would weaken the growth next year and soon ruin the plants. I have met with similar instances.

I can see no advantage in cutting close to the ground, for beds may be made bright by treating them otherwise. I had ample evidence of this in the Didlington Hall Garden. J. CROOK.

## MISCELLANEOUS.

## HOT WATER BOILERS.

WE notice in one of our contemporaries an account of Mr. Louis Pearson's (of Beeston) paper on "Hot Water Boilers," recently read before the Institute of Heating Engineers. Many of the technical details would probably not interest our readers, but there are several hints useful to those interested in horticultural work. In his paper, Mr. Pearson speaks first of the similarity between the modern sectional cast-iron boilers and those in use twenty years ago, and gives illustrations of "Wright's Flame Impact," "Witherspoon's Red Rose," and "Foster's Terminal End Saddle," all made twenty-five years ago. He then goes on to show that these old boilers were both economical and efficient, but they were discarded on account of their faulty jointing and unequal thickness of metal, both of which defects have now been overcome in the modern boilers. He makes a strong case out for cast-iron boilers in preference to wrought iron and steel, as the following will show: "Cast-iron boilers can be made in sections, which enable them to be fixed in positions where wrought boilers could not be. It also enables the fire-box to be made in deeply corrugated or tubular forms, which not only present a much larger surface to the direct action of the fire but also tend to check the flow of gases and mix them thoroughly with the oxygen, thereby causing better combustion and economising fuel.

"Cast-iron is also much less affected by oxidation, which is a great consideration in our climate, and where many boilers are not at work for more than seven months of the year, for boilers, like men, rust out more quickly when idle than when at work. Experiments made by

the Philadelphia Scientific Institute show that as a transmitter of heat cast-iron is more efficacious than wrought iron by over 10 per cent., principally on account of its being more porous, but I think the chief reason for the greater economy of cast boilers is due to the corrugations and the tubes that can be readily and cheaply placed in the fire-box, which not only add very largely to the direct heating surface but break up and thoroughly mix the gases as they leave the fire-box, causing better combustion. Heat is transmitted by radiation, convection, and conduction; it is, therefore, quite plain that while direct heating surface in the fire-box is subject to all three influences the surface in the flues of boilers can only be subject to one, viz., convection, and when the flue is covered with soot, which is so very often the case in brick-set boilers, the efficiency of the surface is very low." We also quote his paragraph on combustion. "I think this subject should be fully considered before designing a boiler of any description or criticising those already made. Heat is, you are probably all aware, caused by the chemical union of various elements, which in the case of burning coal and coke, consists principally of the oxygen of the atmosphere being mixed with the carbon and hydrogen (especially the latter, the heating power of hydrogen being three times greater than that of carbon) this affinity is greatly increased at a high temperature. As there is only one part of oxygen to four parts of nitrogen in the atmosphere, we see the necessity of introducing a large amount of air to ensure perfect combustion, in fact, providing that the air is sufficiently heated, I think it is almost impossible to introduce too much in a low pressure hot water boiler. Mr. H. J. Mills in his treatise on boilers puts the amount of air required to consume one ton of coal perfectly at 120,000 cubic feet. It will be seen from the foregoing remarks the reason for a thin fire giving a much better result than a thick one. As a rule it is safe to say that the smaller the fuel the thinner the fire should be, and the larger the fuel the thicker on account of the larger interstices in the use of the latter. It is a common practice to leave the fire-door open for a short time after firing to consume the smoke. This, of course, is wrong, for though you get a large supply of oxygen, yet as it is at a low temperature and does not therefore combine properly with the gases, the boiler is being cooled instead of heated, and in the case of wrought iron or steel it also proves injurious to the plates."

The details of a test made by Mr. Pearson will perhaps interest our readers. The boiler was a cast-iron horizontal sectional boiler 54 inches long by 22 inches by 18 inches (inside measurements); fire grate, 8 square feet; direct heating surface, 50 feet. Flues taken at half value estimated power (allowing 41 feet of 4-inch pipe per foot of direct surface), 2,050 feet of 4-inch pipe; actual, 1,950 feet. The boiler was worked to its full capacity during thirteen hours per day, and was banked up to burn slowly for the remaining eleven hours; fuel consisted of half slack and half gas coke. Fuel consumed equalled 30 cwt. per week of six days (as the fire was banked up during Sundays). This is a very favourable result, and could probably be considerably improved by substituting coal for slack.

Most of us have been troubled at some time with damp stoke holes, so we make no apology for giving this paragraph *in extenso*.

"Damp Boiler Holes.—These are often a source of considerable trouble to both heating engineers and their clients, and I think most of the trouble is caused by engineers trying to keep water out of the stoke holes built with flat sides and bottom by merely laying the bricks in cement or lining with Val de Travers, without considering the pressure. This is very considerable, for the total amount on a boiler house floor 15 feet by 10 feet by 5 feet deep, supposing the subsoil water to be level with the top of the brickwork, is 54,000 lb. or nearly 25 tons. It is therefore quite apparent that this must be provided for. With small, medium-sized boilers the simplest and best way is to place the boiler in a wrought iron tank, which should be well tarred inside and out and paved with blue bricks. Where the boiler is very large there should

be an inverted arch built under the floor of the stoke hole and tied to the side walls, which should be at least 14 inches, and have an inch space left between the  $\frac{1}{2}$ -inch and 9-inch work, to be afterwards filled with Val de Travers. Even with this plan the workmanship and material must be of the best to ensure success."

## THE PURCHASE OF ARTIFICIAL MANURES.

(Continued from page 239.)

*The nitrogenous-phosphatic manures.*—The most important of these is dissolved bones, though bone-meal, fish-meal, &c., have their value for certain purposes. Dissolved bones lose in value through being damp and lumpy; they can, however, be bought as dry and almost as fine as superphosphate. They usually contain 32-34 per cent. of total phosphates (of which more than half should be soluble) and fully 3 per cent. of nitrogen. Bone-meal should be very fine and free from grease. Any particles one-tenth of an inch or upwards in size become available very slowly. It should hold about 50 per cent. of phosphates and 4 per cent. of nitrogen.

*Potash manures.*—Genuine kainit contains about 12½ per cent. potash, besides which it holds over 30 per cent. of common salt. Where, therefore, a farmer wants to use the latter substance he may find it to his advantage to employ this manure. Sulphate of potash is offered in various degrees of strength, containing from 25 per cent. to over 40 per cent. of potash. Muriate or chloride of potash often holds over 50 per cent. of potash. All potash manures are apt to be lumpy, and if they are stored long they may become so hard as to be almost unmanageable. Poor mechanical condition is here quite as undesirable as in the case of other manures. Potash manures are most important for root and leguminous crops, less so for grass and cereals. There are many well-authenticated instances of potash manures doing positive harm to meadows, though in other cases they have been used effectively. Whether they are wanted on any particular farm or not can only be determined by experiment.

## VALUATION OF ARTIFICIAL MANURES.

There are various methods of valuing artificial manures, of which that known as valuation by units is most employed by farmers and dealers. The general trend of prices is determined by market influences, and is largely beyond the farmer's control, but a reliable method of valuation enables him quickly and accurately to conclude which of several samples of the same class of manure is the cheapest. The following figures must be regarded merely as examples, prices fluctuating considerably from year to year, and in different parts of the country, owing to a variety of causes.

For the purposes of the valuation of artificial manures a unit may be taken as synonymous with 1 per cent. of the valuable substance in a manure. To find the value of a unit we divide the price of a ton by the percentage composition of the manure. Thus sulphate of ammonia containing 20 per cent. nitrogen, and costing £11 per ton, carriage paid, offers nitrogen at £11-20 = 11s. per unit. Or as 20 per cent. of nitrogen is equivalent to about 24½ per cent. of ammonia, the cost of a unit of ammonia is 9s. 1d. We can use one or other of these unit-values to enable us to determine which of several samples of sulphate of ammonia is the cheapest. Suppose that we are offered other two samples, the one guaranteed 18½ per cent. and the other 16 per cent. of nitrogen. The price per ton of the former, on the same basis, should be 18½ × 11s. = £10 3s. 6d., while that of the latter should be 16 × 11s. = £8 16s. Comparing these figures with the price actually demanded we are able at once to determine which of the three lots of manure is the cheapest. It may be mentioned that it would be rather exceptional to have the opportunity of obtaining sulphate of ammonia so poor in nitrogen as 16-18 per cent., but dirty samples do sometimes occur, and if the quotation



of a price, to include carriage, can be obtained, one can sometimes secure good value in a low class manure, provided the impurities are of a perfectly harmless character. The value of a unit of nitrogen in nitrate of soda is generally rather higher than it is in sulphate of ammonia, which means that farmers regard the former source of nitrogen as rather the more valuable.

When sulphate of ammonia is selling at about £11 per ton, carriage paid, nitrate of soda will usually be costing about £9. On a basis of 15½ per cent. of nitrogen, the value of a unit in the latter case works out at  $\frac{£9}{15.5} = 11s. 9d.$ , that is 9d. higher than in the case of sulphate of ammonia. If we use this unit to value sulphate of ammonia, we should get the value of a ton as  $20 \times 11s. 9d. = £11 15s.$ , which is 15s. higher than this manure can usually be bought for when nitrate of soda is at £9 per ton. Now, it lies in the power of many farmers to secure this 15s. by depending on sulphate of ammonia rather than nitrate of soda where the conditions are specially suitable for the use of the former substance. When sulphate of ammonia costs more—per unit of nitrogen—than nitrate of soda, as occasionally happens, the latter manure is almost invariably to be preferred.

As a rule, organic nitrogenous manures are priced in the market at a much higher rate per unit than is the case with the two manures just looked at. The results of their use do not justify this position, for organic nitrogen will not produce so much increase as nitrogen from nitrate of soda or sulphate of ammonia. If we employ 11s. 9d. as the value of a unit of nitrogen in its most effective form, and apply it to the valuation of some organic manures, we should get some such results as these:—

Fish-meal, say 8 per cent. nitrogen  $\times 11s. 9d. = £4 14s.$ , together with an allowance of about £1 for phosphates, giving a total value of £5 14s. per ton. Some samples of fish-meal hold more and some less than 8 per cent. of nitrogen, in which case the value would rise or fall, though not quite proportionately, on account of the phosphates.

(To be continued.)

## NURSERY GARDENS.

### THE KING'S ACRE NURSERIES, LIMITED, HEREFORD.

**D**ISTANT some two miles or more from the ancient cathedral town of Hereford are situated the nursery grounds of the King's Acre Nurseries, Limited. To many, perhaps, these would be more familiar under the name of Cranston's Nurseries, for as such they were known until the last few years; and a generation ago in the world of horticulture, and more especially in the domain of Rose culture, Cranston was a name to conjure with. Originally established in 1785 by John Cranston, these nurseries, which of late had become somewhat unfamiliar, were taken over three years ago by the King's Acre Nurseries, Limited, entirely a private concern, and they now are, as we shall hope to show later, fast developing into one of the most up-to-date of British nurseries. Towards such an end intelligent cultivation and management are greatly assisted by natural advantages, for as is well known, and as has often been proved by displays of fruit at provincial and metropolitan exhibitions, Hereford as a fruit-growing county is very hard to beat, whether the fruits are considered with respect to their size or quality. Besides having the advantage of suitable climatic conditions, these Hereford nurseries possess a soil as rich and good as one could wish for, and, to judge from what we saw, one that is eminently suited to the culture of fruit trees and Roses. But few nurseries are privileged to contain so

interesting a spot as do the ancient gardens under notice. On the lawn in front of King's Acre House stands a grand old Cedar, which records state was planted in 1790, although we should have guessed it to be much more ancient. Beneath this tree originated the idea of the

FORMATION OF THE NATIONAL ROSE SOCIETY, and the gentlemen to whom is due the honour of founding this excellent society were Mr. John Cranston, of the King's Acre Nurseries, Mr. William Paul, and Mr. George Davidson, the latter a then well-known local nurseryman. Near by and also well worthy of note is one of the most handsome specimens of the Weeping Ash in the country; the circumference of the ground covered by the spread of its branches is no less than 48 yards. The King's Acre Nurseries are about 100 acres in extent. Within the last two or three years many acres of fresh land have been acquired, and the resulting crops show in a most decided manner how fruit trees, Roses, &c., appreciate new soil. The stretches of Apple, Pear, Plum, and other fruit trees, one, two, and three years old, from the bud or graft, were

A PLEASURE TO SEE, uniformly vigorous, clean, and healthy. The same words may be justly used with reference to the fruit trees in the older parts of the nurseries. They are strong and straight stemmed, having evidently been well cared for as maidens. The cordon Apples trees in the accompanying illustration are representative specimens. The importance of staking fruit trees when quite young is apparently recognised; no amount of subsequent training will make a crooked stem perfectly straight, and, besides, a tree that is properly staked and cared for when young will be able to take care of itself in the course of a year or two. We were struck by the clean vigorous growth of the trained Apricot, Peach, and Cherry trees, and it could hardly be an exaggeration to say that one might travel the country through and not find a more excellent lot of young Black Currant bushes. The Black Currant mite, we were informed, is here unknown, and we can well believe this. Rarely also have we had an opportunity of seeing such a satisfactory stretch of small bush fruit trees, of which there are many acres.

Nor does the healthy growth of leaf and branch belie the state of the roots, as we had an opportunity of learning; a Pear tree dug up haphazard from amongst thousands of other fruit trees exactly similar had a splendid lot of fibrous roots. Such trees one could plant with every prospect of success. To give an idea of the extent of the nursery stock one may mention that no less than 86,000 Apples, Pears, Plums, Cherries, &c., were worked last season, in addition to many thousands of bush fruit trees, such as Gooseberries, Currants, &c. One point upon which the King's Acre Nurseries pride themselves is the cleanliness both of the ground and of the plants. Nor is this



CORDON APPLE TREES IN THE KING'S ACRE NURSERIES, HEREFORD.

assumption unwarranted, for weeds in most of the quarters are conspicuously absent, and

#### NO TRACE OF DISEASE

did we see upon the trees. So sincere is the determination to prevent the introduction and probable subsequent establishment of American blight in the nurseries, that many old fruit trees in the immediate vicinity have been cut down and burned.

Both picturesque and interesting are the three drives which traverse these nurseries; one is bordered on both sides by an excellent selection of young conifers, another by Tea



Roses (the Rose border, however, will shortly be superseded by a border of herbaceous plants), and the third, which is in course of formation, by specimen fruit trees. Hornbeam hedges, 5 feet or 6 feet high, divide the nurseries into sections (large or small, according to the plants to be grown within), and thus ensure protection from cold winds, so destructive and weakening to plants when they are young.

Second only in importance to the culture of fruit trees is that of Roses. About

#### 150,000 ROSE TREES

are worked every year, and that they comprise the best varieties of Teas, Hybrid Teas, Hybrid Perpetuals, Noisettes, Climbers, &c., it is almost needless to say. Many are specially grown for covering walls, pillars, pergolas, &c., though dwarfs, half-standards and standards are of course grown in much larger numbers. We were much interested in a plot of some 20,000 dwarf Roses growing on the fresh land that we previously mentioned as having been added to the nurseries. Many were on the Manetti and the Briar cutting stocks, and less upon the seedling Briar, for the former are found to be the most satisfactory. As an example of the astonishing vigour of the plants and their evident appreciation of the existing conditions, we would mention the fact that a good number of the buds that were inserted in August last had produced strong shoots 10 inches or 12 inches long, and some were bearing blooms that would not have been out of place upon an exhibition board.

#### FOREST AND ORNAMENTAL TREES

and shrubs cover a large acreage. Many are specially grown for park and avenue planting. The conifers are remarkable for their robust and sturdy habit and good colour. The first-mentioned characteristic undoubtedly is largely due to the fact that each plant is allowed plenty of room in which to develop. There is a branch nursery at Birch, some six miles from Hereford, where the soil, though it contains no peat, proves to be eminently suited to the culture of Rhododendrons, Azaleas, and allied things usually spoken of as American plants. The features of plant culture under glass are at once apparent. They are represented by

#### ROSES IN POTS, CLEMATIS, AND AMPELOPSIS.

We saw several thousands of pot Roses, many of the climbing varieties having made shoots from 12 feet to 15 feet long in one season; these plants, moreover, were quite clean and uniform. The Ampelopsis Veitchii in small pots deserve specially to be mentioned; one could not wish to see better plants, vigorous, clean, and well furnished with healthy foliage. Clematis in small pots are also an important and extensive item, several thousands, growing in small pots and plunged in ashes out of doors, have made excellent growth, and many are still in flower. Tuberous Begonias and Gloxinias are grown in considerable quantities, and by continued hybridising good strains have been obtained. A peep into the well-arranged fruit room to see how finely coloured Hereford-grown Apples are, even in this untoward season, terminated our inspection of a nursery that is destined undoubtedly to earn a well-merited reputation.

#### NOTES ON THE MELON.

MELONS belong to the family which embraces widely different kinds of fruits, and includes the Cucumber, the Gourd, and the Vegetable Marrow; but of all the family the Melon is far and away the most important, whether considered as an article of

luxury in this country or as an article of food in the country in which it is indigenous. The Cantaloupe Melon, which takes its name from a town so-called near Rome, is the variety most esteemed on the Continent, to where it was introduced from Armenia. Miller says that it grows in that part of Armenia which borders on Persia in such plenty that a horse-load is sold for a crown.

The flesh of this Melon when grown to perfection is delicious; it is rather dry, inclined to hardness, and not melting or juicy as compared to the Melon grown in England under glass. It is imported in large quantities, and, as it is sold cheaply, affords to our industrial population wholesome and pleasant food. The Melon may be grown in this country in summer in unheated glass frames, and so grown is of superior flavour to the imported fruits, but it is to be obtained at our shops at so low a price that its culture in this country under artificial conditions will never be undertaken to any extent.

The Water Melon is a fruit greatly appreciated in Egypt, China, and the East Indies, where it is cultivated to a great extent on account of its grateful coolness and delicious flavour. In some parts of Egypt whole districts are said to be covered with Water Melons. They are sown in the sand on the banks of rivers. The variety of the Melon known to English gardeners appears to be a native of Tartary, and, like many more of our exotic fruits, is supposed to have been introduced into Britain from Italy. Gough states that Melons were common in England as early as the time of Edward III., but were entirely lost, as also was the Cucumber, during the Wars of the Roses. Miller voices a complaint of very long standing when he says that "in this country there are too many Melons produced of no value by those who supply the market, and who, in endeavouring to increase their size, render the fruits of no value."

That the complaint has existed from that time until now in a more or less acute form must, I am afraid, be admitted, but let us hope that the indictment pronounced against the Melon in his time is not warranted at the present day. As a fruit grown in British gardens the Melon may not claim to be in the front rank of importance as compared with some of our other more cherished fruits, yet no good dessert in summer is considered complete without its refreshing and welcome presence, and no committee of a summer show of any account would think of issuing a schedule without offering prizes for this popular summer fruit, and certainly no gardener is deserving the name who has not endeavoured, according to his opportunities, to excel in its cultivation.

Any structure that is sufficiently well heated will grow Melons satisfactorily under intelligent supervision, but for very early crops lean-to houses well heated are the best, and these should be facing due south. For summer crops no doubt span-roofed houses are the best, and they should be built with ends facing south and north, so that the plants will have full advantage of the morning, afternoon, and evening sunlight, and not the full force of the sun at the hottest time of the day.

I do not advocate large houses for Melons, for one reason because they succeed better in rather small ones, and for another that they can be more economically grown there, for, naturally, less fuel for heating purposes is required. As regards bottom heat for the borders, I prefer this to be furnished by leaves and straw litter mixed up in a sufficient quantity to make a bed 2 feet thick when well trodden down. This will afford a gentle and sufficient heat for three or four months until the crop is ripe. It used to be the custom years ago, and I am afraid it is now to a certain extent, to provide large, wide, and deep beds to accommodate the materials thought to be necessary for the successful culture of the Melon. This practice I need scarcely say entailed much waste and needless expense, for the Melon needs but little soil to grow in, as is evidenced by the heavy and excellent crops often produced by plants growing in comparatively small pots.

The size of bed 1 would advise if fermenting materials are used should be 3½ feet deep and 2 feet wide, allowing a little more than 2 feet for the fermenting materials, and rather less than 1 foot in depth for the soil. If hot water pipes are used a bed 2 feet deep by 2 feet wide will be large enough. The best compost for the Melon plant is turf cut from old pasture land, and if the land is inclined to be marly or of a strong loamy texture so much the better. The turf should be cut 4 inches deep with the grass intact. It is often recommended that with the loam should be mixed a certain quantity of organic manure in preparing the compost for Melons, but this, in my opinion, is a mistake, as of all materials loam alone is the best.

A. P. H.

#### MELONS IN FRAMES.

IN a season like the present unless one it is well to note which varieties prove a success in frames without the aid of artificial heat of any description. Our frames are standing on cold clay facing the south-east. Small hillocks of turfy loam with a liberal amount of wood ashes formed the compost in which the Melons were planted, and this was made very firm. For several weeks after planting we had comparatively little sun, and the nights were very cold, consequently the plants, although looking healthy, made slow progress. They were planted out the first week in June, and since the beginning of September we have been cutting good Melons of excellent quality. I was at first rather doubtful about the flavour (owing to the absence of sun), although the aroma was very pronounced, but my employers put my mind at ease by telling me the Melons were delicious. The varieties grown were: Hero of Lockinge, Sutton's A1, Ringleader, and Perfection. The method of training the plants is much the same as when growing in houses, except that the laterals are more thinly disposed, an important fact often neglected by amateurs. Watering and ventilation must also be carefully attended to; in dull cold weather it is better to err on the dry side, giving copious supplies of water in hot sunny weather.

Cam.

J. G.

#### THE INDOOR GARDEN.

##### CELOSIAS.

WHEN well grown these decorative subjects are much admired on account of their bright and graceful plumes. I find, however, that some amateurs fail to obtain the best results, generally because of the attacks of various insects, which the plants are rather subject to if grown in a dry atmosphere. We find about the first week in May a good time to sow the seed; there is no advantage in sowing earlier as the seed quickly germinates, and in early spring the seedlings are apt to be crowded and soon get spoilt. When young they require a moist atmosphere to grow in, plying the syringe to the under side of the leaves twice daily. A suitable compost to pot them in consists of loam one half, leaf soil, dry cow manure, and sand. The pots should be well drained, 5-inch ones being large enough for ordinary purposes. When the plumes begin to show a conservatory is an admirable place for them; associate them if possible with green and white foliated plants, for a very pleasing effect is then gained.

A good method of keeping red spider in check is to sponge well the under side of the leaves occasionally with soapy water. Thrips and aphids can be dealt with by fumigation. It is well known that Celosias make excellent bedding plants, but they are equally effective when grown in pots. Most nurserymen supply good strains, the Drumlanrig and dwarf forms of Messrs. Veitch being excellent in every way.

Cam.

J. G.



**FRITILLARIES IN THE GRASS.**

IN THE GARDEN of September 20, page 195, an exhaustive article is given upon naturalising flowers in the grass. We thought the accompanying illustration of Fritillaries, so well established in grass, would interest our readers. As many are well aware the Fritillary is a native meadow flower, and in many a moist Oxfordshire meadow makes spreading colonies, whilst it is also a good flower for the garden. We notice that at Kew small beds of it upon grass are filled with it. We are indebted to Messrs. Richard Smith and Co., Worcester, for the illustration. Naturalising flowers in the grass is becoming a popular phase of English gardening, and it is certainly a very beautiful way of showing many of the most charming bulbous flowers to best advantage. But only those things that are at home in the grass should be put there. We have seen strange results from growing things more adapted to the border.

there are some good things amongst them. Coming to our best eighteen, first we have, for crimson,

*Mrs. Carter Page*, now well known, the fault of which is that it flowers so scantily, but in other respects is good; and next

*Mrs. Winstanley*.—Here we have a recent and sterling introduction. The plants are very dwarf and sturdy, yet they produce numbers of large finely formed blooms from early in the season till late, the colour being a bright orange-scarlet. Perfect flower stem.

*Mrs. Edward Mawley* is very fine indeed. The flower is large, refined, and of perfect form; the plants are strong and the flower stem stiff.

*Mrs. J. J. Crowe* may also safely be grown as another yellow, but we much prefer *Mrs. Mawley* in every way. Coming to dark flowers,

*Uncle Tom* and *Aunt Chloe*, both by the same raiser, are still the best. *Uncle Tom* is well known, and *Aunt Chloe*, introduced last spring, is a very pretty flower, though a trifle small. The plants are sturdy, and the flower is carried

at base, with white tips. Some of the petals have a band of red down the sides, the blooms quite pendent; and

*Richard Dean*, dark red, heavily tipped with white, too deep at first, but is now opening favourably. The blooms are carried on very long stems, the colour being most striking.

*Alpha*, the new fancy Cactus, though rather heavy in form, is a first-rate bloomer, and quite successful as an all-round Cactus Dahlia. It was by no means rare in some of the best prize stands at the large shows. It is of good size, and continuous in flowering.

*J. W. Wilkinson* must of course be included, but it now needs little description, and

*Lyric*, yellow at base, with scarlet at the points, good when caught just right, but it has a nasty way of going bad at the back long before it is in its prime; also

*Vesta*, rosy pink, rather heavy in form, but indispensable by reason of its colour.

Coming to white, well, a good one is still



FRITILLARIES NATURALISED IN GRASS.

**THE BEST CACTUS DAHLIAS.**

So numerous are Cactus Dahlias becoming, and the output of new ones each year is so abundant, that to read about the varieties in a catalogue is confusing. Yet when the varieties come to be sifted down there are not many very fine ones, from an exhibitor's point of view, but at the same time only those which are good in other respects are mentioned, unless special allusion is made to some defect, such as poor habit, pendent growth, &c. In giving the names and brief descriptions of the best eighteen, the various colours are given, as in several cases other good varieties might be mentioned of similar hue, but the idea is to name a representative collection, such as an up-to-date grower might rely upon as the best obtainable. Here we may mention that no new varieties certificated this autumn are included, as it is impossible to say what these will turn out when grown another year, but to judge from what we saw of them at the shows

quite upright. Our bushes of this are now a picture.

In orange and salmon shades there are always plenty to choose from, and the following are the best:—

*Major Tuppenny*.—Needs no comment.

*Lottie Dean*.—Yellow in centre, shading to amber-buff, fine petals, slightly incurved at the points.

*Florence*.—Yellowish orange, abundant bloomer, of wiry growth, and should be better known.

*Goldfinch*.—Tall, rather late, but very beautiful flower, both in form and colour. Of bicolors we had quite a show last spring, the following three being the best:—

*Gabriel*.—Very pretty indeed, each with white-tipped petals incurving so abruptly as to form an elbow. Just where the red portion of the floret begins the blooms when fully out are quite balls of petal; the habit of the plant is robust, and it flowers freely.

*Columbia*.—A straight petalled variety, crimson

wanted. Probably one of the new whites seen this autumn for the first time will at last supply the long-felt want, but at present

*Lord Roberts* is the best. It is usually in splendid form early in the season, and has long finely-twisted petals, and somewhat pendent although wiry growth.

*P. W. Tulloch*, a large incurved flower, salmon-red, shaded with purple, is good with us, and was shown well on several occasions. It has exceedingly wiry stems and flowers freely.

*J. Weir Fife* is still good. This variety varies from deep blackish purple to quite a magenta colour, oftentimes coming striped with both, and at other times half and half. It has large flowers.

We have now named twenty of the finest, and yet feel there are one or two more that should be added. Of these

*Britannia* is one of the best still, and other good ones are Bessie Mitchell, Floradora, Pretoria, Ajax, and Magnificent. DAHLIA.



## NOTES FROM SCOTLAND.

## THE KING'S VISIT TO TYNINGHAME.

On the 10th inst. the King paid a flying visit to the Earl of Haddington's seat at Tynninghame, passing on his journey from North Berwick the famous Binning Woods, the earliest attempt at systematic tree planting in Scotland. Though so late in the season both gardens were quite gay with flowering plants, nothing excelling the masses of *Tritoma Uvaria* for brilliance. "Bedding-out" for autumn effect is still continued in the garden near the house, but on somewhat different lines from that generally followed, and though there is much brightness, nothing gaudy or tawdry is permitted. In the walled garden, to which His Majesty walked, the main borders are occupied by a great variety of plants suitable to its somewhat formal design. These are mostly arranged in large groups, and in some cases the borders are in one colour. The long arched Apple walk, with its trees covered with fruit, greatly attracted His Majesty's attention, and he also examined with interest a designed garden in box laid out inside the larger one. The examples of old garden statuary and the iron gateways were also closely examined, but time did not permit for an extended view of all the garden treasures, an Oak tree, which His Majesty planted, occupying the last minutes of his stay. An early eighteenth Beech avenue was passed through by the King on his way from Whittinghame, the Right Hon. A. J. Balfour, M.P., having driven His Majesty through

the grounds there on his way from North Berwick.

## A SEVERE FROST

about the beginning of the month destroyed flowers and tender subjects generally in mid-Scotland. As a proof of the lateness of the season such early Apples as Keswick Codlin are not fit to gather in the middle of the month. Fortunately both Apples and Pears have developed in a remarkable way during the present month, and winter vegetables have made great progress.

## MR. DOWNIE,

Edinburgh, had the honour of supplying a purple Sycamore for the King to plant in North Berwick. Mr. W. MacKinnon superintended operations.

R. P. BROTHERSTON.

## SOCIETIES.

## BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THE opening meeting of this association was held at St. John's Rooms, Redland, on the 9th inst., under the chairmanship of Mr. E. Binfield, Old Sneyd Park. On this occasion Mr. Brooks, of Messrs. Garaway's Nursery, Clifton, gave an interesting lecture on the great fruit show of the Royal Horticultural Society held at the Crystal Palace, London. He dealt with the numerous exhibits of former years, and comparing with those of the present season, showed the effects such a summer we have just experienced must have on the fruit supply of the British Isles. He emphasised the fact that gardeners would find it an excellent object-lesson to visit these shows at intervals, thereby gaining a knowledge of fruit grown in different counties and under different conditions. He argued that gentlemen would find it to their advantage to send their gardeners to inspect the exhibits at this the finest fruit show of the British Isles, where they would see the best

quality, and return home with the full intention to grow their fruit equal to that they had seen at the show of shows. Comparing the fruit of this to the fruit of last season, the lecturer remarked on the absence of many of our leading exhibitors, which proved how disastrous our aimless summer had been to fruit crops, and where 4,000 dishes of fruit had been shown in former years, only 1,000 were on the tables this. Mr. Brooks also gave some very useful information as to the packing of fruit, a fact which we are very apt to forget, mentioning the mode adopted by leading exhibitors, which should be of service to the Bristol gardeners. A good discussion followed Mr. Brooks's lecture, and he was cordially thanked for his trouble in putting together such an interesting paper.

The prizes for the evening were for two bunches each of black and white Grapes. For black, the first went to Mr. N. C. Dobson (gardener, Mr. Thoday); Mr. Francis Taggart, F.L.S. (gardener, Mr. Binfield), securing first for Muscat of Alexandria; while Mr. W. A. F. Powell (gardener, Mr. Raikes) was an excellent second for Golden Champion. Lady Cave (gardener, Mr. Poole, F.R.H.S.) obtained a certificate of merit for a collection of ornamental Gourds, the judges also awarding one to Mr. J. M. Kitley, Littleover, Derby, for three bunches black Grapes, notwithstanding they were very much spoilt in transit.

## AMATEUR GARDENERS' (LIVERPOOL BRANCH) ASSOCIATION.

THE monthly meeting was held in the Common Hall, Hackin's Key, Mr. Ellison in the chair. The prize winners of the exhibits were Mrs. Stevenson, and Messrs. Thomas, Moir, Robbins, and Dodd. Mr. E. Pinnington was introduced as the lecturer, selecting "Seasonable Notes" as his subject, which included preparing, planting, and pruning of fruit trees with reference to the best methods of exhibiting. Lily culture was the next point for consideration, early plants being advised in a good compost of loam, rough sand, and leaf-mould, plunging the pots up to their rims in ashes under frames, which avoided the danger of over watering, which is so detrimental to the bulbs. Mr. Ardran proposed that a hearty vote of thanks should be accorded to Mr. Pinnington for his lucid and admirable address. This was carried with applause.



IN A JAPANESE GARDEN.



# THE GARDEN

No. 1614.—VOL. LXII.]

[OCTOBER 25, 1902.]

## THE MIXED BORDER IN ENGLISH GARDENS.

**A**S this is a subject of much interest, and alluded to on page 284, we think a few general remarks will be helpful to our readers.

Some kind of border where there is a mixture of hardy flowers is to be found in every garden. Sometimes it is merely a place where all sorts of plants find a home without regard to effect or any intentional arrangement, but more often, and especially when it is in the more ornamental part of the garden, a good effect is desired, and some advice about its arrangement may be of use.

It is not altogether an easy matter to keep a mixed border well furnished throughout the flowery months of the year, and to avoid unsightly gaps, but there are ways of doing it, and even beginners should not be afraid of facing this fact, and of thinking out ways and contriving methods so as to have as few empty places as may be. There are some common-sense considerations that will be a guide to the choice of plants to use. The first and most obvious is that the plant must be in itself handsome and somewhat showy. The next, and one of the most important, is that it should remain a good while in flower. Plants that are in flower a few days only and then are done are of little use in the mixed border, unless their foliage is unusually handsome and persistent, in which case this is so valuable a quality that it may redeem the plant.

The choice of kinds being decided on, the way in which they are arranged then becomes the matter of chief importance. It seems a natural arrangement to use the creeping and short-growing plants in front and the next in stature behind them, and the tall ones at the back. This is obviously a good general rule, but if not varied with judicious exceptions the result will be very monotonous. Now and then some of the tall backward groups should break forward. Think of the way in which the lateral spurs of a mountain chain descend into the valley or plain. They all do come down to the level, but in how varied and beautiful a way! Think of this and then think of the dull and ugly slope of a slate roof, and then think of your border and apply the lesson.

Then try and get hold of some definite scheme of colouring, in order to get richness and brilliancy with dignity. It saves much trouble and puzzling at planting time to have a regular

scheme of simple progression of colour from end to end, so that if you have a yellow-flowered thing to plant you put it in the yellow place and so on. In no way can you get so much real power of colour, by which is meant strength, richness, and brilliancy, as by beginning very quietly at the ends of the border with cool-coloured bluish foliage and flowers of tender colouring, white, pale blue, and palest sulphur-yellow, and even with these palest pink; beginning quite *piano*, then feeling the way to full, and from that to strong yellows; then by a gradual *crescendo* to rich orange, and from that to the *forte* and *fortissimo* of scarlets and strong blood-crimsons, and then again descending in the scale of strength to the pale and tender colouring.

In other parts of the garden you may have incidents of brilliant contrast, which are especially desirable in the case of strong blue flowers; but in the mixed border the way of having the rich and brilliant harmony approached by more delicate colouring can scarcely be improved upon, and so only can the vice of garish vulgarity be avoided.

Plants of the same colouring are intergrouped, so that the red group, whether early or late, is always a red group, and so on throughout. There are ways of filling gaps by training plants down to fill the spaces. For this use, Everlasting Peas, tall perennial Sunflowers, and Rudbeckias and Dahlias are especially accommodating.

Nothing is so destructive of good effect in the mixed border as the old unthinking mixed up way. Plants of the same kind, instead of being dotted at equal intervals, should be grouped together, each group dying away into the neighbouring group, or if there is only one plant of a kind there is no harm in its being one alone if only it is in its right place.

Of course there are other ways of arranging the details of a mixed border, and many devices that may be used to enhance its effect at the different seasons, but these suggestions will be a good basis of operation to anyone who is without experience and desires general instruction.

## THE ROYAL HORTICULTURAL SOCIETY.

### DONATION FROM THE KING.

WE feel sure all well-wishers of the Royal Horticultural Society and of the new hall will be pleased to know that His Majesty the King has given one hundred guineas towards the

building fund. The following letter recently appeared in the *Times* :—

"Balmoral Castle, September 30, 1902.

"My dear Holford,—The King has been much pleased to hear of the intention of the Royal Horticultural Society to commemorate its centenary in 1904 by the erection of a new horticultural hall for the use of the society.

"I showed the King Sir Trevor Lawrence's letter, and His Majesty commanded me to tell you that he perfectly remembered having addressed the society in 1890, as Sir Trevor states, and you are to tell him from the King that the words His Majesty spoke in 1890 he repeats now, if possible, with a stronger feeling than ever, not only of the desirability but of the actual necessity of such a building as it is proposed by the society to erect.

"Sir Trevor and the society, the King commands me to say, have His Majesty's best wishes in their undertaking, and as a small donation from His Majesty, by way of showing the interest he takes in the Royal Horticultural Society, I am now commanded to forward you a cheque for one hundred guineas towards the fund which is being raised for the new buildings.

"Believe me, my dear Holford,

"Very truly yours,

"D. M. PROBYN.

"To Captain George Holford, C.V.O., C.I.E."

I am to explain that as long ago as 1890 the society had in contemplation the provision of accommodation for its fortnightly shows and office work. In that year His Majesty was graciously pleased to open the society's great show in the gardens of the Inner Temple, and in doing so the King used these words: "I sincerely hope that your labours to obtain a hall of your own may be successful, for I feel sure that it would be of the greatest use and advantage."

Since 1890 the Royal Horticultural Society (founded in 1804) has very largely increased in numbers and influence until it has become the universally recognised head of the scientific and practical horticulture of the United Kingdom, both amateur and professional, connected with which are flourishing industries of ever-growing importance. To prove that this is so I need only mention that the society has now more than 6,000 Fellows, of whom 1,000 have been elected this year.

The single aim and object of the society is to guide and direct the art and science of gardening in all its developments and to popularise the most innocent and fascinating of pursuits.

The financial position of the society is in all respects sound.

A circular has been prepared and is about to be issued for the information of the Fellows of the society and others interested, containing plans, elevations, and particulars of the new hall, which will be built on the estate of the



Ecclesiastical Commissioners facing Vincent Square, S.W., and looking south. A sum of about £19,000 has already been promised towards the cost of the new buildings, estimated at from £35,000 to £40,000. The treasurer of the society, Mr. J. Gurney Fowler, will gratefully acknowledge any contributions.

I am, Sir, your obedient servant,  
WILLIAM WILKS, M.A., Secretary.

Royal Horticultural Society,  
117, Victoria Street, Westminster.

At the meeting of the Royal Horticultural Society on Tuesday last it was announced by the secretary, the Rev. W. Wilks, that in addition to the letter and donation from His Majesty, H.R.H. the Prince of Wales had also written to Captain Holford, a member of the council, expressing his sympathy with the scheme for building a new horticultural hall and enclosing a cheque for fifty guineas. The secretary also informed the meeting that Mr. Leopold de Rothschild had contributed 500 guineas to the fund. This, said the secretary, shows that the project has the sympathy of the highest in the land, and it is to be hoped that every Fellow will follow the good example that has been set. Those who can afford a lot should give a lot, and those who can afford a guinea should not forget to give their guinea, then when everything is complete all may feel they have helped.

Tuesday last was a record day in the history of the society, for the number of Fellows now elected since the beginning of this year is no less than 1,005. Never before in the history of this society have 1,000 members been elected in one year. It is very gratifying, said the Rev. W. Wilks, to find the Royal Horticultural Society so much appreciated.

In the absence of the president (Sir Trevor Lawrence, Bart.), who had hoped to be present but was obliged to attend a meeting in connexion with the King's Hospital Fund, Mr. Harry J. Veitch said he had been requested by the council of the Royal Horticultural Society to present a Victoria Medal of Honour in Horticulture to Dr. Massee, Mr. J. T. Bennett-Poë, M.A., and Mr. Henry Cannell. Mr. Veitch first explained to the meeting how this medal was instituted in the Diamond Jubilee year of the reign of the late Queen Victoria, by permission of Her Majesty, for bestowal upon distinguished horticulturists. The number of those holding the medal can never exceed sixty-three, and the present medals were being given because of vacancies caused by the regretted deaths of former recipients.

Dr. Massee, who first received the medal, is the leading authority upon plant diseases, said Mr. Veitch, and in the herbarium of the Royal Gardens, Kew, has made cryptogamic botany his special study. Dr. Massee had also given lectures and much valuable help to the Chiswick students.

Mr. Bennett-Poë, who next was called, is well known to many, said the chairman. He is to be congratulated upon the energy and patience he has shown in cultivating and bringing to notice many beautiful plants that are difficult to grow and little known. Mr. Bennett-Poë had also been a most valuable member of council.

Mr. Henry Cannell, the third recipient of the medal, had done much for practical horticulture, said Mr. Veitch. It was he who first improved the Dahlia, of which we have now so many beautiful varieties. This was just one instance of Mr. Cannell's valuable work among the flowers.

## EDITOR'S TABLE.

### SEEDLING DOUBLE AND SEMI-DOUBLE WELSH POPPY.

Mr. J. McWalters, The Mall, Armagh, writes: "An autumn gathering of blooms from seedlings of the double and semi-double Welsh Poppy (*Meconopsis cambrica* fl.-pl.). These were gathered on October 13, and if the weather continues favourable I expect the plants will continue in bloom for some time."

[A very interesting contribution to our table; the flowers were as described, and of warm orange and yellow colourings, double without coarseness. A good garden flower.]

### CIMICIFUGA JAPONICA.

Mr. T. B. Field, Ashwellthorpe Hall Gardens, Norwich, writes: "I am sending for your table flowers of *Cimicifuga japonica*. This is one of the most beautiful of our autumn flowers. It is of very easy culture and luxuriates in a deep rich soil. A place should be found for it in every garden however small. Its erect divided leaves and drooping racemes of white flowers make it admired by all who see it."

[A beautiful and neglected plant. We hope those who have not got it in their gardens will make a good note of it. The flower racemes are of purest white, and have an agreeably wholesome fragrance.]

### A NEW GREENHOUSE RHODODENDRON.

Messrs. Fisher, Son, and Sibray, Limited, Handsworth Nurseries, near Sheffield, send us flowers of a lovely new greenhouse Rhododendron named *Duchess of Portland*. They are of such a rich pink colour and so freely produced that this variety should quickly become popular. Messrs. Fisher, Son, and Sibray say that they have been cutting flowers from medium-sized plants for the past month, and they give promise of continuing to bloom for some time yet. This greenhouse Rhododendron was raised by Messrs. Fisher, Son, and Sibray, and we imagine it will prove to be one of the best autumn-flowering plants of its class.

## TREES AND SHRUBS.

### RHODODENDRONS AND THE SEASON.

ON the whole, the weather this year has been favourable for the growth of Rhododendrons, though without the fine, dry time experienced during September very few flower-buds would have formed. The plants grew very freely throughout July and August, the rain during the latter month especially causing the growths to lengthen freely, but without showing any signs of bud except on a few early-flowering sorts, which usually complete their growth in good time. The drier weather of September, however, combined with cold nights (the glass showing from 1° to 4° of frost on several occasions) had the effect of checking growth without injury and promoting the formation of good flower-buds. On the drier ground the set of buds is fairly good, though one or two sorts have not set as well as one could wish, Lady E. Cathcart being the worst, but young plants of this sort rarely set many flower-buds except in a very favourable season, though large plants 6 feet and upwards in height are usually budded on every shoot. As a large plant this is one of the best Rhododendrons known. On the lower and damper ground the plants are much better set with buds than was expected, considering the season, though there are many that have failed to form flower-buds, while others have partly made a bud and then commenced to grow again, which

spoils any chance of their carrying bloom next year. Some sorts—notably Kate Waterer—have formed flower-buds on this second growth, and which, when in bloom, will be rather smaller in size of truss but of good shape and colour. The young stock of Rhododendrons worked last spring were put out during the beginning of August and have done remarkably well, the losses being very slight. The wet weather of August was exactly what they required, and at the present time the whole of them, somewhat over 20,000, are in the very best condition and looking very hard and sturdy. On the whole, the past season has been favourable to Rhododendrons, and, though the chances of the formation of many flower-buds seemed small at one time, yet the dry autumn has caused a good set of bud, though, generally, it is less than it was last year.

Bagshot, Surrey.

J. CLARK.

## STILL OCTOBER.

"The time of the silence  
Of birds is upon us;  
Stately and splendid  
The summer passes."

NOWADAYS one is often told half grumblingly that the seasons have shifted, but is this true? Looking carefully into it shall we not find that the summers and winters of these days come and go pretty much as they always did? Are they not a figment of the imagination, those good old-fashioned Christmases, all icicles and robins, May days of Hawthorn and the Maypole, summers that were all sunshine, winters all skating days and snow. Who originated these legendary tales? It is always the passing generation that speaks about them to the present, and we who now are young will soon be doing the same thing to the next. We shall seize upon the facts we best remember; we shall misplace and mix them up, saying the present years are vastly inferior to the old, and that even the seasons are not so well balanced as they used to be. And we shall say that the seasons have shifted. We shall declare that Midsummer day once really came in the middle of summer, and that Christmas, instead of arriving in late autumn as it does now, was truly a winter festival, and we shall go on being to the last degree surprised and delighted when, as in 1902, summer lingers on, more lovely every day till "still October" is with us telling us all beauty must change and pass.

October is one of the months that is maligned. In spite of storms that sometimes rend her, October's face is fair and her skies as blue as June, and notwithstanding Mr. Millais's picture, we do not allow that she is always chill. "I will wrap me in mists, white and fine," says my lady October. So she does, and her days are shortened, but her mist-wreaths are only for the nights and mornings. No sooner is the sun up than how mellow may be its beams and then how rich, October's robe of gold and crimson.

But the rarer and more excellent charm of the tenth month is its stillness. Many a scene of peaceful beauty is brought up by October. Here is a slow-moving barge, lazily passing onwards between the banks of a canal: a woman with her noonday cooking-pots, faint blue smoke up-curling; a man, his pipe alight, lying prone; trees, banks, Bracken, and the flat-brimmed barge itself, bemirrored in the stream, perfect in the water as in the sunny haze, where float the water-flies, or maybe it is the utter quietude of the reddening woods that draws us, where

"Scarlet hosts of Maple trees—  
The torches of the year—  
Burn low, and beauty grows too deadly fair  
For man to bear."



In October the world is resting. There is no chill as of death, only the warm and tender flush of sleep. And much more often is October *still* than *chill*. Gone is the zest and fervour of the growing months. The sap sinks, the dormouse hides, the squirrel is asleep and dreaming, but Nature is yet alive. In the garden there bloom October flowers as gold and crimson as the sunsets, the Pampas-plumes have put off till now the pushing of their feathery brushes through their fine and delicate tubes. The garden is as quiet as the woods. We can hear a pin—I mean an Acorn—drop, or a Chestnut as it falls through the overhanging bough, dead leaves and red leaves flutter softly down upon the grass.

All the migrants have departed; no willow-warblers now ring merry peals from out the Oak trees. Day after day fresh gaps are found among the garden folk, both flowered and feathered. The ranks are closing up, and this makes all the steadfast friends that stay with us so much more precious. More cosy, too, and more endeared and intimate, just as it is in a house-party that has been thinned by guests that have gone away. How more than ever tame is now the dark-eyed robin, who pipes for us his prettiest tune, and how soft the blackbird's boxwood fluting, as he and his little wife in rusty black flutter in and out of the shrubberies, only pretending to be shy, among the pink-eyed purple Phloxes, the tall Anemones, the sweet Tobacco-plants, and the pale frail flowers of the Evening Primrose.

The earth now radiates the warmth she has been storing up in the long light days of spring and summer. We need not wonder at such kindly heat. The mistake we made was in looking for the warmth too soon. Almanacs are so misleading. They tell us spring is here, just as we want our furs and fires the most, and prate of summer as soon as days grow long. As well might we expect the kettle to boil the moment the faggots are crackling, or the room to be fit to live in directly the fire is lit, as to feel any benefit from sun-heat before it has had time to penetrate and warm the ground.

Our mistakes about the seasons have cut two ways. Early disappointments are forgotten in the unlooked-for sweetness of October. We need not mind having been behindhand with the almanacs and the stars while we enjoy St. Luke's summer in the usual way, gathering the autumn Roses as pink and perfect as if made of sea-shells, plucking the juicy Blackberries and listening to the gossip of the birds. Every one of the seasons has its sweetness:

"For myself I would choose  
The soft mists of October;  
Her habit and veil I would choose,  
And her rich thoughts more sober."

F. A. B.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

*LONICERA ETRUSCA*, *Rhododendron* (Java), various hybrids, and *Tricyrtis hirta*.

#### Palm House.

*Crinum careyanum*, *C. erubescens* var. *minus*, *Hymenocallis eucharidifolia*, and *Medinilla javanensis*.

#### Water Lily House.

*Clerodendron disparifolium*, *Hedychium coronarium*, and *H. spicatum*.

#### Orchid Houses.

*Acineta Barkeri*, *Angraecum distichum*, *Bulbo-*

*phyllum careyanum*, *B. Dearei*, *B. rufinum*, *Catasetum christyanum*, *C. fimbriatum*, *Cattleya Aclandiae*, *C. bowringiana*, *C. labiata* var. *aurea*, *Ceologyne lagenaria*, *Cymbidium longifolium*, *Cypripedium Charlesworthii*, *Dendrobium Phalaenopsis*, *D. sanguinolentum* var., *D. secundum*, *Epidendrum Armstrongii*, *Eulophia pulchra*, *Houlletia brocklehurstiana*, *Ionopsis paniculata*, *Listrostachys Monteiroi*, *Lycaste xytriphora*, *Maxillaria grandiflora*, *Miltonia candida*, *M. spectabilis* var. *moreliana*, *Mormodes Buccinator*, *M. pardina*, *Neobenthamia gracilis*, *Odontoglossum andersonianum*, *O. grande*, *O. Hallii*, *O. odoratum*, *Oncidium crispum*, *O. Forbesii*, *O. Papilio*, *O. varicosum*, *Platyclinis cobbiana*, *Pleurothallis pulchella*, *Polystachya luteola*, *P. ruficula*, *P. tessellata*, *Rodriguezia fragrans*, *Selenipedium longifolium*, *S. Schlimii*, *Stenoglottis fimbriata*, *Vanda cerulea*, and *Zygopetalum cochleare*.

#### ↑ Range.

*Aristolochia clypeata*, *Calliopsis aurantiaca*, *Clerodendron splendens*, *Daedalacanthus parvus*, *Dipladenia eximia*, *Erica conspicua*, *E. spicata*, *E. tubiflora*, *Hippeastrum aulicum*, *Ipomæa rubro-cerulea*, *Nerine* (various species and varieties), *Passiflora amabilis*, *Pelargonium citriodorum*, *P. fragrans*, *P. Schottii*, *Thunbergia grandiflora*, and *Zephyranthes gracilifolia*.

#### Succulent House.

*Crassula rubicunda*, *Dyckia brevifolia*, *Senecio sub-scandens*, and *Solandra grandiflora*.

#### Greenhouse.

Among other things the following are conspicuous: *Chrysanthemums* in variety, *Eupatorium odoratum*, *Lilium sulphureum*, *Peristrophe speciosa*, *Tibouchina macrantha*, *Salvia azurea*, and *S. splendens* var. *grandiflora*.

#### Herbaceous Plants.

*Cortaderia argentea*, *Crocus asturicus* and varieties *atropurpureus* and *azureus*, *C. cancellatus* and varieties, *C. hadriaticus* var. *chrysobolonicus*, *C. iridiflorus*, *C. longiflorus*, *C. pulchellus*, *Funkia lancifolia* var. *tardiflora*, *Kniphofia corallina*, *K. sarmentosa*, *Liriope spicata*, and *Zizania aquatica*.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

October 28.—Croydon Chrysanthemum Show (two days).

October 29.—Kent County Chrysanthemum Show at Lewisham (two days); Highgate Chrysanthemum Show (three days).

October 30.—Penarth Chrysanthemum Show.

October 31.—Finchley and Leyton Chrysanthemum Shows (each two days).

November 1.—Battersea and Derby Chrysanthemum Shows (each two days).

November 4.—National Chrysanthemum Society's Exhibition, Royal Aquarium (three days); Royal Horticultural Society's committees meet; Southampton and West of England Chrysanthemum Shows (each two days).

November 5.—Hanley, Margate, Northampton, Cardiff, Cambridge, Hereford, Sevenoaks, Truro, Southend-on-Sea, Halifax, and Ascot Chrysanthemum Shows (each two days).

**Fruit show at Cork.**—An exhibition of Irish-grown fruit and fruit products, organised under the auspices of the Department of Agriculture and Technical Instruction for Ireland, was held recently in the Concert Hall of the Cork Exhibition. Though the show was confined, as far as its competitive sections were concerned, to Irish fruit producers, there were also exhibits from some prominent English firms. Mr. William Baylor Hartland, Patrick Street, Cork, was given a special award for an excellent display of Irish-grown fruit. The following papers were read at the conference:—"Apple Growing for Profit," by Mr. F. W. Moore; "Prospects of Fruit Growing

in Connaught," by Mr. John Galvin; "The Progress of Fruit Growing generally in Ireland, and some of the Grievances of Irish Fruit Growers," by Mr. W. R. Orr; "The Marketing of Irish Fruit," by Mr. W. L. Cole; "Methods of Dealing with Second Grade Fruits and Vegetables, and an appreciation of the value of same as Items of Dietary," by Mr. James Harper.

**United Horticultural Benefit and Provident Society.**—The sixteenth annual dinner of this society, which was held last week, and of which a full account appears elsewhere, was a most successful one. The society now has £20,000 invested and almost 1,000 benefit members, besides between seventy and eighty honorary members. The committee are most anxious to increase the number of members to 1,000 and 100 respectively, so all those interested should take note of this and give their help. Mr. Arthur W. Sutton, who presided at the dinner, very kindly promised to insert a paragraph in the forthcoming catalogues issued by his firm drawing attention to the advantages of this society, and he trusted that other firms would see their way to do the same.

**Royal Caledonian Horticultural Society.**—The date of the spring show for 1903 has been altered to May 20 and 21. Besides the many classes for plants, cut flowers, and fruit, the schedule contains information respecting the competition open to under gardeners only, for a plan, drawn to scale, for laying out a piece of ground about three acres in extent, as shown on a given sketch plan. All plans for this competition must be in the hands of the secretary, Mr. P. Murray Thomson, 5, York Place, Edinburgh, not later than April 1 next. A special notice in the schedule states that the council having resolved to do away with all the competitive classes in the nurserymen's section will grant awards to meritorious exhibits, and they invite the hearty co-operation of nurserymen and florists.

**Chrysanthemum show at Alexandra Palace.**—An important event in the history of the Highgate and District Chrysanthemum Society will be the holding of its annual exhibition in the Alexandra Palace on Wednesday, Thursday, and Friday next. Those best competent to judge feel confident the society has done the proper thing in arranging for the use of the Central Hall of the Palace for this season's display. There are very few better halls in the country for horticultural exhibitions than the great hall of Alexandra Palace, and in view of the fact that there is a most liberal schedule of prizes, in which classes for all types of the Chrysanthemum are represented, the display on this occasion should be a very good one. Promises of support have already been received from trade and other growers, and as there are a few classes in which the prizes are very tempting, the combined efforts should create an exhibition of a brilliant character, and one which will be regarded as a red-letter day in the history of the society. Not the least important attractions of the show will be the groups of artistic design and the decorative exhibits, for which the Highgate Society has always been justly famous. Mr. W. E. Boyce, 20, Holmesdale Road, Highgate, N., is the secretary, and is always willing to give all possible information.—D. B. C.

**Lilium Henryi.**—Having seen glowing accounts of this Lily in trade catalogues and elsewhere, I confess to being somewhat disappointed. I have seen it well grown too. The flowers are comparatively small, and appear even smaller by reason of their height from the ground—usually 6 feet—of an undecided yellow colour and quite scentless. *L. speciosum*, which it somewhat resembles, is far more beautiful, easily grown, and is about one-fifth of the price.—W. P. [We think our correspondent must have seen this beautiful Lily at a disadvantage. It is one of the most vigorous of the whole family, perhaps not so showy as many others, but its apricot colouring is fresh and distinct. We have seen it in many gardens and always with pleasure. Dr. Henry, after whom it is named, writes about it in this week's issue, page 284.—Ed.]



**The season's flowers.**—Crimson Roses are the most striking denizens of the borders. Here and there belated *Lilium speciosum* show brilliant colouring, and *Pelargoniums*, zonal and Ivy-leaved, brighten the shortening days. But the effect of one boldly-designed bed attracts much notice; it is comprised of *Salvia splendens*, alternating with groups of *Hedychium gardenianum* and bordered with a broad band of *Ageratum*. The *Hedychiums* are splendid in their yellow and scarlet spikes of feathery flowers, and contrast well with the richly-coloured *Salvias*. *Dahlias* are blooming freely, and the blue-blossomed shrub *Caryopteris Mastacanthus* tones down the golden *Harpaliums*. The tiny *Roses* (*Elfin Roses*) sown in February and blooming in June are radiant gems; the second year plants are perfect in miniature form and varied tints.—C. R.

**Is Mme. Jules Grolez Rose scentless?**—Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, write: "Mme. Jules Grolez is strong and sweetly perfumed, and I am glad to see that there are some readers who appreciate this lovely Rose."

I can fully endorse the editorial remarks at page 240 relative to the fragrance of this lovely Rose. In fact, I alluded to its fragrance in a short paragraph concerning the variety as far back as July 30, 1898. Mr. Sawyer in his excellent little work "*Rhodologia*," which is about the odour of the Rose, says at page 12: "Cut Roses placed in a vase diffuse their fragrance more powerfully than when growing on the plant;" and also: "It is a well-known fact that at different times in the day an individual flower will emit a different perfume." The fragrance of the Rose is a subject worthy of more attention than it has hitherto received. Why cannot the framers of prize schedules establish a class for the most fragrant Roses? But perhaps the judging of the same would be a difficulty. Unquestionably, individuals vary considerably in their ability to appreciate fragrance in flowers. Mr. Sawyer says in the work quoted (page 9) that "the organs of the sense of smell can be trained to the appreciation of perfumes, especially by young persons, as the palate can be trained for business purposes to the tasting of the flavours of wines, tea, or coffee." Some individuals would go so far as to bar all Roses from their garden that are devoid of fragrance, and as a guide to such that are most fragrant we seem to require an authoritative pronouncement. Cannot someone who has leisure take up this matter and divide the varieties now grown into, say, three groups: (1) most fragrant; (2) moderately fragrant; (3) quite devoid of fragrance?—PHILOMEL.

As differences in soil and atmospheric conditions probably exercise an influence on the perfume given off by some varieties of Roses, you may be interested in my experience. Since reading the remarks in THE GARDEN of October 18 I have on three different occasions carefully examined several blooms of this variety and found them all *sweet-scented*. The perfume is not so strong as in the case of *La France*, but is more refined than that of many Hybrid Teas, and in this respect I think it nearly approaches to many of the pure Teas. I may add that I found the young blooms gave off a stronger perfume than the fully expanded ones. There is no doubt but that this is one of our very best Roses, and I hope that other growers will be able to confirm your verdict as to its scent.—OSMOND G. ORPEN, *Hillside, West Bergholt, Colchester*.

**Notes from Ireland.**—During the past week, on the occasion of a visit to the charming gardens of Sir Jocelyn Gore Booth, Bart., at the foot of Ben Bulbin (so dear to Irish botanists), and

extending to the shores of the Atlantic on the peninsula of Raughley, on the western coast of Ireland, between Sligo and Bundoran, what impressed me most were the masses of blue *Hydrangeas* which were to be seen at every turn through this magnificent place. Fringing the avenues, forming thickets in the parks, and as an undergrowth in the forests, blue *Hydrangeas* were everywhere. To those whose sole conception of this charming flowering shrub consists in the contemplation of a stunted specimen in a tub or an occasional isolated bush in the grass, my attempt to convey even a faint idea of the superlative beauty of acres of gigantic specimens densely covered with their enormous trusses of bright blue flowers will, I fear, be futile. The *Hydrangeas* at Lissadell are certainly worth going a thousand miles to see. The peculiarity of the *Hydrangeas* in this place (apart from their wonderful size and luxuriance of growth) is the almost entire absence of any tinge of pink in the flowers. With the exception of a group of bushes near the gardener's

Irish horticulturists. The report of this great show and conference will form the subject of next week's notes.—T. SHAW.

**The White Rock Cress (*Arabis albid*) on a wall.**—I send you a photograph—amongst others—of *Arabis albid*, growing at Crosby Farm, Crosby-on-Eden, near Carlisle, which was photographed on May 21 of this year. It was just past its best when I took the photograph, but the result was very much better than I anticipated. This Rock Cress has been growing for some years at the foot of this hedge, and, I understand, was much admired by persons passing along the main road, which is on the other side of the gate. The Rock Cress has an easterly aspect, the roots are situated at the foot of the hedge, and the long trailing stems of the plants hang down over a brick facing to the hedge. No particular attention, I believe, is given to the culture of this bright charming spring flower, which seems to have made itself at home, and every year is a beautiful sight.—R. CARRUTHERS, *Eden Grove, Carlisle*.



THE WHITE ROCK CRESS (*ARABIS ALBIDA*) ON A LOW STONE WALL.

residence—beautifully situated on the sea shore—I did not notice a suspicion of pink among the flowers. On the contrary, every shade of blue, from pale cerulean in the woods to deep blue in the open was represented. I may mention that many of the individual bushes were over 8 feet high and 10 feet or 12 feet in diameter, and carried several thousands of enormous trusses of flowers. We are now almost on the threshold of the Chrysanthemum season, and though we would fain believe that summer, or at least autumn, has not yet left us, we are actively interested in the two great events of the winter season—the Royal Horticultural Society of Ireland's show at Ballsbridge and the still greater function which attracts Irish Chrysanthemum growers to the northern capital, both of which events occur in the first fortnight of November. The great show of Irish-grown fruit, which the Department of Agriculture have organised—as a fitting consummation of their herculean work in the cause of the development of Irish industry—at the Cork Exhibition is the all-absorbing topic amongst

**Blue Crocuses.**—Among "Items of Interest" in the *Daily Mail* of the 20th inst., I read "Blue Crocuses are to be seen blooming at Leamington Spa," as though this were a phenomenon. It would appear by this that the autumn Crocus (*C. speciosus*), which I suppose the writer saw, is not grown as commonly as it should be.—W. P. [We quite agree with our correspondent. This beautiful Crocus is not grown nearly so much as it deserves.—Eo.]

**The Gardeners' Royal Benevolent Institution. — Proposed Liverpool Auxiliary.**—In the report of the meeting held in the City Hall on March 12, 1902, for the purpose of extending the knowledge and aiding the funds of the above institution, which the committee have the pleasure to record as an unqualified success, we notice the following paragraph:—"The committee desire to recommend that an Auxiliary of the Gardeners' Royal Benevolent Institution should be formed in Liverpool, and that a general meeting of those interested be called in October for carrying out the necessary details."



### November sowing of Sweet Peas.

I tried sowing these in various winter months in pots kept in the unheated glass house, to be planted out for early flowering. I found November was the best month to sow the seed, and the plants kept in flower much longer than those forced by fire-heat. From seed sown on November 10 the plants were 1 inch high by December 7; shifted into 8½-inch pots on January 30 and staked; planted in the border, two pots to each group, April 24; in flower May 3 until middle of August. The year before seed sown the same date in November flowered from May 25 until the end of October, but then the plants were fed with liquid manure.—WINIFRED SPURLING.

**Late Peach Thames Bank.**—I was glad to note that at the recent Palace show of hardy British fruits there was a very good dish of the above variety. I was rather amused to find it described as a new introduction, as I have grown it for many years. It is rarely seen; why, I do not know, as I consider it one of the best of the late Peaches in the yellow-fleshed section. I am aware the yellow varieties in many cases do not compare with others—they lack flavour; still Thames Bank is one of the best, and its lateness makes it more valuable. This variety was raised within sight of the Thames by a good fruit grower in his day, Mr. Rust (at Broom House, Fulham), and he grew it well for many years. The flesh is deep orange and the skin also, and the fruits rather more oblong in shape than round. The flesh is tender and juicy, and well flavoured for a yellow Peach. Its season is late September, and it keeps good for some time after being gathered from the trees. In size it is larger than most Peaches, and in this respect it resembles Late Admirable, but is superior to it in flavour.—S. H. B.

**Black Bryony.**—The black Bryony grows in the Surrey lanes with trails of berries 2 feet or 3 feet long, and if these are picked when ripening vary from emerald green to scarlet, and make lovely decoration for the room. After several weeks they become dead ripe, and if laid just as they are in the ground, say, under a western fence, covered with a few inches of soil, they will come up freely the following year. The next year, when the small plants have died down, they should have 6 inches or more of soil put on them, as at that stage they suffer if frost gets at them. They bear berries about the third year. It is difficult to take up plants out of the hedges as the tubers are so deep down, and besides are so soft they easily rot when transplanted. It is also necessary to have a lot of plants together, as they are dioecious, male and female blooms being on different plants, so that only if grown together do female plants bear berries.—J. R. D., Surrey.

**Colonial training for women.**—The Horticultural College, Swanley, has recently opened a colonial training branch, where women will receive preparation for colonial life, with special regard to horticulture, dairy work, and other outdoor occupations. The syllabus for the autumn term includes horticulture, domestic economy, jam making and bottling of fruit, instruction in native South African languages, fruit packing, milking, &c. The half term begins on November 10. The Colonial syllabus is arranged in conjunction with the British Women's Emigration Association. The Hon. Sir John Cockburn, K.C.M.G., is now a director of the Swanley College, and his name also appears upon the Colonial branch committee.

**New Strawberry St. Antoine de Padoue.**—The introduction a few years ago of the perpetual Strawberries is an immense gain to the private grower, who with a little attention to cultural details can now have ripe Strawberries well into the autumn. I have never seen better results with regard to crop than this season, but I fear on some heavy soils and damp places, if the plants are at all thick, difficulties have occurred in ripening the fruit owing to lack of sunshine. This note is written to point out the value of this new fruit, and though, from a market point of view, St. Antoine de Padoue is not large enough it must certainly become a standard variety for late supplies. One of the best points about this

perpetual race is their simple culture. When given a fairly rich not too heavy soil they make splendid growth. The earlier introduction, St. Joseph, is one of the parents, the other being the Royal Sovereign; but the fruit does not greatly resemble the last-named other than that the plant is a stronger grower and the fruits larger, of a bright red colour, with good flavour, even at this late season, and nearly round in shape. By planting these varieties to follow the summer fruiterers there is no break in the supply if different positions are given to the plants. For latest supplies the first blossom that shows is removed. I have seen splendid crops on plants that fruited early, made new runners, and on these gave a later crop.—G. WYTHES.

**Neglect of British Ferns.**—The varieties of British Ferns are very numerous, and so varied and beautiful are they in growth and formation that they should be more largely grown, though I am aware there are many excellent collections grown out of doors, also of magnificent specimens rivaling the exotics, grown simply in a cool house. Whilst framers of schedules only turn their attention to the heat-loving species we are not likely to see British Ferns take their rightful position. How many small growers would take up their culture had they the encouragement from horticultural societies to do so, and one is glad to notice this step being taken up in several directions. Summer schedules will soon be formed, and the framers of such might do worse than include a class, and so benefit a considerable number of enthusiasts who have neither the time nor command of heat required for exotic species. I feel sure that many of your readers will support me in my plea. If so, I shall be pleased to name some good varieties suitable for pot culture.—A. B.

**Peach Marquis of Downshire.**—This is a valuable late Peach, not only for its crop but also for its flavour. I fear under this name it is not so well known as it should be. It is an old but good variety that should not be overlooked. It was raised many years ago by Mr. J. Standish, of Ascot, and sent out as Royal Ascot. Why it was called the Marquis of Downshire I am unable to say, but fruit growers are well aware that a good fruit of any kind frequently gets several names in different localities. I consider this variety of better quality than several of the late Peaches, such as Barrington, Late Admirable, and others. The fruits are large—at any rate above medium size—with a light red cheek, mottled and a darker red where exposed to the sun, flesh tender, very juicy, and sweet. It is a freestone. The flowers are large and produced later than some kinds. As regards cropping it is one of the best and a very free grower, its season being late in September. Doubtless on account of its late flowering the crop is superior, as in some seasons when others fail this crops freely. This variety is not in many fruit grower's catalogues.—S. H. B.

**Pear Grosse Calebasse.**—Fruit tree planting will soon be in full operation, and in almost all gardens varieties not hitherto grown will now be included. Stewing Pears in many large establishments play such an important part that they cannot well be overlooked, and from all appearances will be still more in demand. Catillac and Uvedale's St. Germain are probably the best known in this section, but I want to impress upon those not acquainted with this Pear to include it. Grown as an espalier it is perfect, making abundance of fruit buds and a short-jointed growth, the fruit often weighing 1½ lb. and upwards. Coming into use in November it is highly appreciated, but care should be taken not to let it get over ripe or the centre becomes black. The colour of the fruit being a dark brown is often misleading in this respect.—A. B.

**Calceolaria Burbidgei.**—This plant was raised in the Trinity College Botanical Gardens, at Dublin, in 1879-80, and was the result of crossing the flowers of *C. fuchsiofolia* (= *C. deflexa*) with pollen of *C. Pavoni*. In habit of growth and in leafage the hybrid resembles its pollen parent, but the flowers are more like those of *C. fuchsiofolia* or *C. amplexicaulis*. The hybrid roots freely from cuttings, and is a rampant grower, especially

asplanted out in the bed or border of a cool greenhouse, and it is peculiar amongst Calceolarias in flowering during the autumn, winter, and spring months, better than during the summer season. It was originally described in THE GARDEN, Vol. XIX., page 59, by Mr. W. E. Gumbleton, under the name of *C. hybrida* Burbidgei. In THE GARDEN, Vol. XX., page 422, Mr. T. Smith, of Newry, in alluding to this hybrid, remarks that all my seedling hybrids were alike in habit and leafage, whereas a batch raised by himself at Newry from the same parents, contained all sorts of intermediates between the parents in habit and leafage. Unfortunately, an accident happened and all the Newry hybrids were lost or died before they flowered. *C. Burbidgei* was illustrated by a coloured plate in THE GARDEN, and is generally to be seen in bloom during the autumn and winter season in the greenhouse (old No. 4) at Kew.—F. W. BURBIDGE.

## THE WALL GARDEN.

### THE WALL GARDEN IN OCTOBER.

**Q**UITE a number of attractive plants are either still in bloom or are flowering for the second time, especially in the West of England. Nor are those still blooming confined to the larger or more robust kinds like Red Valerian or Sedum spectabile, which were mentioned in previous notes, and are still very bright, but quite a variety of small perennial wall plants have not yet finished flowering.

*Linaria pallida* is among the neatest of wall plants. In the rock garden or border, where it can spread as it pleases, it is apt to become a nuisance, and often comes up in places where it is not wanted, but in the joints of a wall, where its spreading powers are limited, it is an excellent thing, and its lilac flowers with yellow throat are most attractive.

*Ethionema grandiflorum* is now flowering for the second time. It is true the flowers are not as large as those which appeared in May or June, but anything in the shape of flowers is welcome in October, and these pink flowers contrasted against glaucous foliage are certainly striking.

*Corydalis lutea*, as well as its cogenere *Corydalis alba*, are still flowering, and better wall plants it would be difficult to find. They are satisfied with the often scanty nourishment obtainable from narrow joints in a wall, and their flowering season seems only quite over when winter sets in.

*Achillea tomentosa* with its bright yellow corymbs of flowers is also blooming a second time. It is not quite so satisfactory a plant for the joints of a wall as the Fumitory mentioned above, but its proper place is the top of a wall. In such a position it will thrive admirably, while

*Tunica Saxifraga* will do for either side or bottom. Its loose pendent shoots and its pale pink flowers make it a desirable plant for wall gardening.

*Echeveria farina* is a good wall plant only in the southern or western counties, where there would be little to fear from frost. It is not at all hardy in the Midlands or in the North. Its chief attraction lies in its almost snowy white, thick, fleshy leaves. For a hot dry sunny position it is a desirable plant where the climate is warm enough.

*Polygonum vacciniifolium* has already been mentioned in previous notes, but it is still in bloom. Its cogenere *Polygonum Brunonis* is much more rampant in growth. It is blooming for the second time now. The leaves are 6 inches to 8 inches in length, while those of *P. vacciniifolium* are less than an inch, and while the latter species is seen at its best when hanging down from the top of a wall, *P. Brunonis* is best at the bottom. Its pink flowers are attractive, but it must certainly have plenty of room.

*Calandrinia umbellata*, with its brilliant magenta



flowers, is again flowering a second time, though its proper flowering season is generally July. It is an excellent wall plant for a sunny position. In some localities it is only biennial, whilst in others it will last for many years.

*Arenaria grandiflora* has larger flowers and blooms later than its companion *A. montana*. I noticed it in several gardens in Cornwall blooming for the second time, and its pure white flowers are always welcome. It is not quite so pendent in its mode of growth as *Arenaria montana*, and is therefore not quite so elegant a plant for the top of a wall, but planted on the face of the wall between the joints it is generally satisfactory.

*Sempervivum Lageri* I also noticed in full bloom in October. It is larger in all its parts than the more generally known Cobweb Houseleek (*S. arachnoideum*), and is an excellent plant for a dry wall with very narrow joints. It is most accommodating and will grow even in mortar joints. In fact if it is divided and its rosettes of foliage are inserted, even without any soil, among the chinks of the stones it will generally thrive where most other things would fail.

*Androsace Leichtlini*, or, as it is sometimes called, *Androsace lanuginosa oculata*, with its white flowers with crimson eye and its silky grey foliage, is an excellent wall plant. It will grow in quite narrow joints, provided there is at least a little gritty soil between the stones. Its flowering capacity seems to extend over a longer period than that of the better known lilac species, *A. lanuginosa*, for while the latter has passed out of bloom some time ago *A. Leichtlini* is still quite an attraction.

*Callirhoe involucrata*, with its large brilliant purple flowers, is still blooming, and makes a good plant for a sunny position on the top of a wall, where its prostrate shoots would display their blossoms to greater advantage. Its individual flowers have a white centre and are quite the size of half-a-crown or even larger.

*Sedums* generally are more attractive on account of their foliage this month than for their flowers, though several are still in bloom, among them being *Sedum spectabile*, *S. Telephium*, *S. sibiricum*, *S. pruinatum*, and *S. spurium*, all with red or reddish flowers.

*Campanula isophylla* and *C. isophylla alba* are not sufficiently hardy for wall gardens, except in warm sheltered situations, but in Cornwall they are still blooming now and make a glorious display.

*Elmside, Exeter.*

F. W. MEYER.

## THE HAMMOCK UNDER THE OAKS—IV.

### BEAUTY OF PHLOXES.

LATE in July our Phloxes are at their best. We have tried many varieties and grown them in many combinations. Perhaps nothing is prettier than a good stretch of one variety, such as *Auguste Rivière*, one of the finest French sorts lately introduced. This has large trusses of bloom, and is a rich carmine, a very distinct and beautiful shade. Some Phloxes are as scarlet as *Geraniums*. *Coquelicot* is one of these, and makes a brilliant bed on the grass of the lawn. We have to find a place remote from all other red flowers for the crimson and amaranth shades which do not harmonise with the other sorts. Some of the newer kinds are so brilliant that we cannot dispense with them. Toned down by free admixture with the white kinds they look very well; they are good carrying colours, and really very effective.

A separate border contains some lovely pink and light carmine sorts, such as *Adonis*, *Pantheon*, *Ornament*, and *Captain Wilhelmy*. The pure white sorts and the white with rose-coloured eyes, such as *Amazon* and *Henri Murger*, can be planted almost anywhere as they do not jar with other flowers. If my choice were limited to eighteen varieties, I would choose *Coquelicot*, *Flambeau*, *Caran d'Ache*, *Auguste Rivière*, *Coccinea*, *Pantheon*, *Adonis*, *Captain Wilhelmy*, *William Robinson*, *Ornament*, *Eclairer*, *Le Vengeur*, *Oberon*, *General Chanzy*, *Henri Murger*, *Miss Lingard*, *Amazon*, and *Matador*.

From the hammock under the Oaks I can see all these and many more. On my left, in front of the wild garden, are the lake and crimson sorts, such as *Le Vengeur*, which is a tall kind with splendid glowing blossoms of rich amaranthine red. *Matador* is next, and is a lighter shade of the same red. Here, too, is the new *Eclairer*, which is crimson with darker centre and a ring of rosy white around the eye. It is rather dwarf, with very large heads of bloom. In this bed also is an old but good variety called *Lothair*, a light carmine colour, and, for relief to the bright-coloured groups, there are plantings of the tall pure white *Amazon*, the early-flowering rather dwarf *Miss Lingard*, also white, and *Richard Wallace*, white with rosy eye, another old variety. On my right is a long stretch of border in front of some old Cherry trees, which give it partial shade, planted with *Coquelicot* and *Flambeau*, two sorts that are both scarlet and very much alike.

If I turn my head I can see behind the hammock on the other side of the path leading to it the pink and vermilion-coloured sorts, which we think the most beautiful of all. *Auguste Rivière*, *Ornament*, *Adonis*, *Pantheon*, *Coccinea*, and *Captain Wilhelmy* are among the best of these. We like to have a specialty for every month of the flowering season, and the Phlox is the specialty for July. One would not think that we could succeed as well as we do with them in this dry garden on top of a hill. Even *Miss Jekyll* complains that her Phloxes dry up and show brown stalks and withered lower leaves. I always think the climate of England an ideal one for flowers. It is so moist and temperate compared to our parching summers with their torrid heat. Nevertheless, and while we fail with very many lovely flowers that the humblest cottager in England grows to perfection, we do succeed with Phloxes. What they seem to want is heat, moisture, rich, not sandy soil, and partial shade. This year we have had what the farmers call a "good growing season," with much more rain than usual, and not very many days of torrid heat. Yet the 17th of this month was intensely hot. All day long the wind blew from the south-west, a parching wind like a sirocco. That is the wind we dread the most—the wind that brings heat. At six o'clock p.m., the thermometer stood at 96° Fahrenheit; next morning it was 95° at nine o'clock; but before long a thunderstorm cooled the air, and now it is comparatively pleasant at 80°.

To return to the Phloxes. I think the secret of our success with them is that they are planted in soil made rich with plenty of wood's earth mixed with well-rotted cow manure. These beds are deeply dug and kept well stirred and well watered when necessary. All of them are in partial shade, without being too near the larger trees of the grove. We also mulch these beds in dry weather.

Whatever else we may have to neglect we always pay due attention to our Phloxes, because they are the garden's pride. I used to experiment with a great many plants more or less adapted to the conditions here; but now I am more ambitious to grow a few plants to perfection than to have a very large variety of flowers. Each month some one conspicuous plant is made the feature of the garden for that month. It is the queen of the month, around which the other flowers group like ladies of the Court. Almost all of the Phloxes I have mentioned are called autumn-bloomers; but with us they begin to flower late in June and continue until blighted by frost. I do not mean that all our varieties bloom for such a long period. Most of them do not flower well until the middle of July. *Miss Lingard*, a low-growing sort, flowers in June, and is the first of all; *Henri Murger* follows in a week or ten days, and then the others in twos and threes, until all are in flower at once.

### OTHER BEAUTIFUL PERENNIALS.

Besides Phloxes there are a great many other perennials now in bloom. The path to the hammock skirts a rough bank for some 20 feet, and this bank we have, in humble imitation of a bank at Kew, planted with *Yuccas*, interspersed

with grasses and plants with sword-shaped leaves. Here, besides *Yuccas* in several species, are *Hemerocallis*, *Anthericum*, *Asphodel*, *Hyacinthus candicans*, *Lyne*, and *Pampas Grasses*, and at the top *Arundo donax* makes quite an imposing display.

Just now the only plant in bloom on this bank is some clumps of a tall *Hemerocallis*, which I obtained under the name of *H. Sieboldii*. Whether this is its right name I cannot tell, as there is so much confusion among dealers in naming *Hemerocallis*. It is a valuable species, blooming long after *H. flava* is over. The plants throw up many stalks, 2½ feet to 3 feet in height, bearing trumpet-shaped blossoms, tubular at the base. The colour is a clear lemon yellow, and they have no fragrance. There is always a deficiency of blue flowers in my garden. Perhaps it is for this reason that I prize so much the few blossoms of this colour that I have. There are a few *Campanulas*, *Platycodons*, and *Delphiniums*, but these do not make much display. Cornflowers we always have with us, but Cornflowers are not effective in the mass; their colour does not carry well. They are useful to put in vases and pretty at close quarters, but at a little distance their effect is lost. Nature is sparing in her use of blue as if it were not after all an earthly but a celestial colour. There is something very appealing about some flowers of this cerulean hue. The *Forget-me-not* is a sentimental little plant that everybody loves, while if it were yellow or pink it would not be prized at all. The faint blue of *Innocence*, whose other name is *Quaker Lady* (*Houstonia cerulea*), is enough to make one weep, not mawkish tears, but tears of gladness that any flower can express so much purity and peace. Who has ever seen a little bank by a stream in a green meadow covered with fragile *Bluets* without feeling better and happier for the sight?

The tinyness of some flowers makes us love them all the more. When Tennyson speaks of

"The little Speedwell's darling blue,

I think he must have meant the little wild *Veronica* that is one of our earliest wild flowers, and that has minute pearly blue flowers delicately veined with azure.

If we had a blue flower as small and fragile as *Innocence* and with as delicate fragrance as trailing *Arbutus* what a favourite it would be! But, strange to say, blue flowers are never fragrant, are they? I cannot think of any really blue flowers that are so. It seems as if Nature had done enough for them in giving them the colour of the sky, and reserves her gifts of fragrance for less favoured blossoms. Violets are not blue, though they are called so. Many purple, violet, or mauve-coloured blossoms, like *Heliotrope*, for instance, are exceedingly fragrant, but I cannot think of one fragrant blue flower. After breakfast this morning I counted my *Hollyhocks*, and was pleased to find that I have thirty kinds. Some are single and some double. I have the species called the Fig-leaved *Hollyhock* and some of the new crimped Allegheny kinds. My *Hollyhocks* are in twenty shades of colour, ranging from white to almost black. *Hollyhocks* assume nearly all the colours that *Roses* do; every colour except blue may be found among them. However, I must qualify this statement, for I have never found a *Hollyhock* of the colour of the Austrian *Copper Briar*. I have quantities of them in the orchard along the fence. A hedge of *Hollyhocks* makes a fine screen to shut off the *Corn*-patch at the top of the orchard hill. They do not suffer from the *Hollyhock* disease, and they increase and multiply and hybridise themselves at their pleasure. Some of the hybrids between the common sorts and the Fig-leaved are very pretty, in odd shades of salmon-pink and pale tawny yellows. The Fig-leaved has lemon-coloured blossoms. Is there such a thing as an orange-coloured *Hollyhock*? I wonder? They are handsome but not aristocratic flowers, and remind me of cottage maids. They never look better than when associated with homely surroundings, as the kitchen yard or to screen outbuildings. We have a great many of them in front of the carriage-house, but these are not going to bloom this year. They were all eaten



by the cows, who have developed an extraordinary appetite for Hollyhocks. The cows cannot get to the orchard, so all the Hollyhocks there are still unchewed, but those by the carriage-house are quite devoured down to the ground, so that we have been drinking our Hollyhocks in milk.

DANSKE DANDRIDGE.

Rose Brake, West Virginia, U.S.A.

## NOTES ON HARDY PLANTS

### VERATRUM VIRIDE.

**T**HIS plant (shown in the accompanying illustration) was introduced from North America in 1742, but unfortunately is now rarely met with outside botanic gardens, which is possibly owing to the fact that its flowers are not showy, being of a light green. It is, however, a truly handsome plant, and is seen to advantage skirting the front of the shrubbery or along a woodland walk. It does

for these flowers before forming a representative collection of the autumn and winter-flowering forms. Some of these are scarce and too expensive for planting by the dozen or hundred, but there are others, again, which are cheap enough to be purchased in such numbers as will form a clump at a moderate price. Such are *C. speciosus*, *C. zonatus*, and *C. pulchellus*, one of the prettiest of the Crocuses which bloom in autumn. One cannot repeat too often that the Crocuses are not to be confounded with the Colchicums, which custom has recognised as the Autumn Crocus. The true Crocuses are far more refined and beautiful, and have ranges of colour not to be found among the Meadow Saffrons. In *C. pulchellus*, for instance, we have a small flower with the most pleasing pearl-blue colouring, quite a distinct tone from *C. zonatus* or *C. speciosus*, and of as fine form as either. A few years ago it was quite an expensive Crocus, but now nine or ten can be bought for what was once the price of one. Like many other autumn flowers, it does not produce its leaves until after the flowers have gone, and it is thus all the better for being carpeted with something which will be green in autumn and is yet a surface rooter. A Sedum,

me, I was pleased to come across a white-flowered variety in a nursery a short time ago. Unfortunately, the stock was not large enough for its being put into the market, but with such a good grower as this plant is there ought not to be much difficulty in its propagation for sale ere long. *C. g. hirsuta* alba hardly needs any description, as it is simply a perfectly white variety of the type, and resembling it in every particular save that of colour. One will be only too glad to have this plant when it is for sale.

### VERONICA PARVIFLORA.

THIS New Zealand Veronica is one of the species which are not sufficiently well known in gardens, for many of these Veronicas are hardier than most persons imagine, especially if they are planted where they do not get the sun too early in the morning. *V. parviflora* is one which has proved thoroughly hardy in my garden, though I have seen it a little the worse after a bad spring. I have never lost a plant from the weather, and it has been grown here for at least ten or twelve years. It forms a pretty bush, about 3½ feet high, though I can hardly say what height it would reach if left unpruned; it is pretty with its narrow light green foliage. Yet it owes most of its beauty to its flowers, and not the least of its value in the garden is due to its long blooming. It is in flower for months as a rule. I have several good bushes, and these have been, and still are, delightful with their little spikes of white flowers. It must be said, however, that *V. parviflora* has rather a reputation for tenderness, but I originally received it from an inland Scottish garden, where it was hardy on a stiffish soil and in a low and cold situation. The greater number of my plants are self-sown seedlings, and these come up very freely about the rockeries on which the older plants are grown.

S. ARNOTT.

Carsethorn, by Dumfries, N.B.

### ANDROSACE LANUGINOSA.

I REGARD this as the best of all the Androsaces. No Androsace can be grown successfully year after year and flower month by month as will this one; indeed, the plant seems only to require the absence of frost from our midst to render it quite perpetual flowering. I have some young plants in the cutting boxes that have flowered twice this year already, and the now forward points produced since the latest flowering have apparently flower-trusses still. It is plants of this class that I

regard as first-class in every way, and therefore plants for everybody to grow abundantly. Yet with all its good qualities it is not grown as one would expect, when we remember that few things are so well suited for furnishing rocky slopes or even carpeting beds of dwarf shrubs and in other ways. A capital place for it is a rocky bank. Certainly nothing could be more beautiful than its hoary leafage. Then again in blossom, where there is a patch worthy the name there is the ever-changing character of the flowers to catch the eye at every turn. The flowers vary from lilac of a pinkish hue to a creamy colour, which may be heightened or otherwise by soil or position. To see it in perfection a bank or slope should be clothed with it, or at least a patch 8 feet or 10 feet across, as I saw in a garden in early summer. All the plant requires is a good depth of loam freely intermingled with sand and old mortar refuse. If given this, and the drainage is also secure, the plant will be benefited by much more moisture than can be with impunity given to a large number of the species, and what is more to the point is the fact that overhead moisture is not harmful. In the hottest soils and positions the plantation may be in a rather sheltered place, but north of Birmingham,



VERATRUM VIRIDE IN THE PHYSIC GARDEN, CHELSEA.

not mind shade if this is not too dense. The lower leaves are broad and massive, beautifully recurved and plaited, and on this account alone the plant is worth growing. When well established the branched racemes of flowers are borne in profusion, and reach a height of 4 feet to 5 feet. The flowers show polygamy to a marked degree; in some cases bisexual flowers are found on certain branches, and on others unisexual, and it not infrequently happens that entire plants bear male flowers only. Although the plant enjoys a rich loamy soil, it is not fastidious in this respect. Propagation may be effected by means of seeds or division of the rhizomes; but since Veratrums are rather impatient of root disturbance seeds are preferable, being best sown as soon as ripe owing to their soon losing vitality.

Chelsea Physic Garden.

W. HALES.

### CROCUS PULCHELLUS.

THERE is a steady increase in the number of those who grow collections of Crocus species, but, like everything else, one needs to acquire an enthusiasm

such as *S. Lydium*, or a Saxifrage of mossy habit, is as good as anything, but the drawback of the Saxifrage is that it forms a harbour for slugs, which are fond of the flowers of *Crocus pulchellus* and other autumn-blooming Crocuses. This Crocus is a native of the North of Asia.

### CAMPANULA GARGANICA HIRSUTA ALBA.

CAMPANULAS of dwarf habit are always appreciated by the alpine lover, although it must be said that a considerable number are not easily cultivated, yet there are a good many which present hardly any difficulty in this respect. Among the most easily cultivated, and at the same time one of the prettiest of slightly trailing habit is *Campanula garganica hirsuta*. I prefer it to the typical *C. garganica*, because of the more attractive appearance of the whole plant, with its hirsute foliage and pleasing flowers. It has another advantage in a somewhat slug-infested garden, inasmuch as these pests seem averse to the hairs on *C. g. hirsuta*, while they sometimes attack the typical *garganica*. As the ordinary *C. g. hirsuta* with its pale blue flowers is such a favourite with



for example, it may be best without this. What is greatly appreciated by the plant is a free root run, hence we do not see it in such perfect health where close tenacious clay abounds. As a free-flowering plant of shortly trailing, or even in some instances procumbent habit, I do not know its equal given the conditions named. The additional fact, too, that it is grown perfectly in gardens widely separated, as Ryde, Dublin, York, Middlesex, &c., making quite a feature by reason of its continuous flowering, should be an encouragement to many to naturalise it, so to speak, on bank or slope or rocky mound or any place where a perfectly free and beautiful flowering plant can be admired or appreciated. Above all it is easily propagated from cuttings, to which I will refer again, for in this way a colony of a hundred plants may soon be forthcoming. E. JENKINS.

### PROPAGATION OF ANDROSACE LANUGINOSA.

Those interested in this beautiful plant may like to know that this is an excellent time for increasing



LILIUM HENRYI FASCIATED.

(From a photograph kindly sent by Dr. Henry.)

it by cuttings. These are best if made entirely of the tips of the branches constituting the most recent growth of late summer, or indeed any of the terminal points do well for purposes of propagation. These may have an inch of stem attached, from which, when all the leaves are removed, the young bits are quite ready for insertion. Where a large stock is quickly needed, however, and the material at hand not over-abundant, the stems may also be cut up into short lengths and treated in the same way, except that some leafage must remain on the upper part of the cutting. In this way a large lot may be secured, not that all the stem pieces root quite so readily as the terminal pieces, for these are virtually crowns or rosettes of leaves. All that remains is to make up a square hand-light for their reception, filling up the square box nearly half its depth with very sandy loam, and covering the surface with about half an inch of pure sand. Formerly I employed old mortar or broken brick

also with the cutting soil, and though I still adopt it for the plants, I have to some extent diminished it when propagating, as I find the cuttings root quite freely treated as above. The cuttings should be firmly placed in position and thoroughly watered in and allow the leafage to dry again before covering up. Constant overhead watering will speedily kill the entire batch, as the woolly leaves do not readily dry up. When water is given the light should remain off for three hours or so, and at this time one watering per week will suffice. By this treatment a large number will root by spring, and many before, the state of the wood governing this to a large extent. E. J.

### NOTES ON LILIES.

#### LILIUM HENRYI.

THIS Lily has been in cultivation since 1889, and so far as I know scarcely any variation has occurred in the shape or colour of the flowers. From the outset the plant, when grown under glass in a cool house, has differed markedly in habit from the wild form. The wild plant never is met with taller than six feet, and it has the stiff erect habit of stem of ordinary Lilies. Under cultivation it has more than doubled in height, and grows almost like a Bamboo, tall, graceful, with a stem bending over at the summit, and the number of flowers has increased extraordinarily. This year fasciation has occurred apparently for the first time. The photograph reproduced is of a plant growing in the garden of Mr. P. R. Kelly, of Paoli House, Athlone. He informs me that the number of flowers is over 200. The stalk is almost flat from the ground, becoming at the top quite flat, and there it is  $8\frac{1}{2}$  inches wide, with a thickness of only a quarter of an inch. The inflorescence measures in length 21 inches, and the total height of the Lily is 7 feet 5 inches. Mr. Kelly's bulb was sent to him some years ago from Kew at my instance, and it descends from my original stock. A similar case of fasciation has occurred this year in Mrs. Berkeley's garden.

Lilium Henryi, as a wild plant, has a very restricted distribution and a peculiar one, as it is met with in two localities differing markedly in soil, aspect, &c. In the Ichang gorge it was common on the rocky limestone ledges, where they were covered with short grass at altitudes above sea level of 1,000 feet to 2,000 feet, and in these wind-swept, sun-exposed situations it rarely exceeded three feet in height, and generally bore only one or two flowers. In the conglomerate mountains south of Ichang it grew taller, and bore often five or six flowers; still it never exceeded six feet in height.

The original stock from which the Lilies grown at Kew spring was a small number of bulbs sent by me from the limestone cliffs of the Ichang gorge in 1889. Some time afterwards I sent a small box of bulbs to Dr. Wallace of Colchester, and some of the stock of the Colchester firm is derived from this source. Afterwards Messrs. Wallace, in conjunction with a Japanese firm, imported into Japan some bulbs, which I believe were dug up in the same locality, and for years the growth of the plant on a commercial scale has been carried

on in Japan. During the present year Mr. E. H. Wilson has brought home a large number of bulbs, which were dug up in the conglomerate mountains near Ichang, and this stock is in cultivation at the Coombe Wood Nursery of Messrs. Veitch. At the show in Holland Park this summer Mr. Wallace and myself thought that there was a difference in the colour of the flowers of his Lilies and those of Messrs. Veitch; but this difference was due simply to forcing. Grown in the ordinary way in the open there is no difference at all between the Lilies grown at Coombe Wood, derived from the conglomerate mountains, and those at Kew, which descend from the limestone bulbs. It will be interesting to watch if in course of cultivation any differences arise.

The capabilities of Lilium Henryi for hybridisation were shown in the production of Lilium Kewense, which so strangely resembles the wild form of Lilium auratum. Indeed, it has been suggested that this last-named Lily may be a hybrid; but of the occurrence of it in an apparently wild state in Japan there is no doubt. It is somewhat remarkable that Lilium speciosum is not known in the wild state in Japan, according to Franchet and Savatier. It is, however, truly wild at Kiukiang in China. The Japanese have been importing plants for cultivation from China for centuries, and it would be a very interesting study for Japanese scholars to see if there are any records of the origins of many of their cultivated plants, such as these Lilies. I have pointed out elsewhere that Ichang, situated on the great river, was the probable source from which the Chinese derived some of their striking cultivated plants, as Primula sinensis, the Chrysanthemum, &c. It would be a strange thing, but one not inherently impossible, if Lilium auratum were really a hybrid of Chinese origin, which has become wild in certain parts of Japan.

AUGUSTINE HENRY.

### THE FLOWER GARDEN. WINTER SCHEMES FOR SUMMER COLOURING.

WE are indebted to our excellent contemporary *Country Life* for the following valuable suggestions by Lady Algernon Gordon-Lennox about summer borders, a subject that we know, from the many questions asked, is interesting to readers of THE GARDEN:—

The few suggestions which I offer at this season, in all humility, on the important question of colour considered in relation to the flower garden are intended more especially for the practical guidance of those who possibly are not able, by means of pencil and brush, to illustrate with facility their own ideas, assuming, of course, that the garden is to be designed and the borders planted without the assistance of a landscape gardener. The additional time and thought required will be amply repaid by the ultimate satisfaction of feeling that the garden is of one's own creating, and that, even through failures, experience has been gained.





STANDARD TREE OF ROSE BENNETT'S SEEDLING (THORESBYANA)  
IN THE GARDEN OF MR. S. HEILBUT, THE LODGE,  
HOLYPORT, NEAR MAIDENHEAD.

At Broughton the garden has grown up in this way. Four years ago the old castle looked down reproachfully, as if to chide neglect, upon a rough grass field, which has now given place to a semi-formal garden, the design of which we borrowed from a curious old picture at Dunrobin of a parterre at Heidelberg dating from the sixteenth century. Set within clipped hedges, and brilliant with herbaceous plants, it now forms a more worthy setting in these peaceful days to those old grey walls from whose shelter Nathaniel Fiennes, and the leaders of the Puritan party, sallied forth to do battle with the forces of the King. Borders bright with hardy flowers nestle against the battlemented walls; Delphiniums, Foxgloves, and Shirley Poppies fringed the moat, and seem never to weary of their own reflections in the still water, as if they were aware that each has a part to play in helping us to complete the colour scheme.

Is it, I wonder, the result of many happy hours spent in the sunny south, that to me colour is almost as indispensable as sunlight? Nowadays we have this great advantage, that colour in flowers—even as in materials and decoration—has been improved out of all knowledge. Instead of the old-fashioned sickly mauve and magenta Phloxes of our childhood we have been given such varieties as Coquelicot and Etna; the monotonous crimson and dingy pink of the Pæony have yielded pride of place to the brilliant hues of the ones raised by Messrs. Kelway, Dessert

Méchin and others; the wonderful shades to be seen amongst the Tea Roses—these are only a few instances of the revival of taste for *true* colours which has taken place in the flower world. There is, therefore, no excuse for want of harmony, but, in order to attain success, we must first learn to *study* colour effects; even as the painter determines what is to be the highest light in the picture, so must the most brilliant patch of colour in the border have its allotted place.

Some of my readers may never, perhaps, have realised how essential it is to adapt colour to surroundings; cool and delicate tints will appear infinitely more telling when planted in semi-shade, whereas a brilliant scarlet or yellow is intensified by the sun's rays. Nowhere is this effect of sunshine upon colour more forcibly illustrated than in the East; glowing hues which rejoiced the eye beneath a cloudless sky almost invariably appear garish and crude when associated with our grey English atmosphere, no longer wearing the same aspect as amidst their own surroundings. It is, therefore, manifestly impossible to dogmatise where gardening is concerned.

I can imagine many criticisms being passed on the general scheme of one of my borders, but for the present moment it will serve to illustrate this colour theory of mine. Running along a broad grass terrace, it faces south-west; behind it stands a crumbling, Ivy-covered wall, terminating with the beautiful old house which has weathered the storms of full six hundred years; not a tree casts its shadow anywhere, and the wall, sheltering the border, as it does, from the north and east, is, in consequence, no protection from the sun's rays.

In such a position, brilliancy is obviously essential, for the beauty of the grey stone, mellowed by age, is enhanced a thousand-fold by the belt of glowing colour at its base, and nothing like the same effect would be attained were the predominating note a subdued one; on the other hand, where shadow can be secured, the more delicate the tones the more effective will they be.

In the making of a border, when planning a broad colour-effect, dimensions are important, owing to the fact that the width must determine the plants to be used; the broader the border the easier it is, to my mind, to plant it well, for colour is always more effective when massed. In narrow borders there is a greater risk of that fatal mistake of "spottiness," which so frequently destroys the effect of an otherwise good mixed border, because the clumps of each individual plant are not large enough.

In certain positions dimensions have to be governed by architectural features (a large illustration is given in our contemporary showing a case in point), for the distance between the projecting buttress of the building at one end and the termination of the wall at the other limited the total length to 119 feet. As one almost invariably finds in these early buildings, the wall, although starting from the house, does not run parallel with it. The border obviously could not project beyond the

buttress, so in order to ensure a true line for the grass terrace, which is continued under the windows of the house, it was necessary gradually to increase the width of the border from 7 feet 8 inches to 9 feet 4 inches.

I quote these measurements merely in order to show that, even where one has to adapt one's self to circumstances, it is possible by *careful* planting to secure a satisfactory effect of colour; but I would insist on the point that, where space is not limited by any such conditions as these, the broader the border the more effective will it appear.

(To be continued.)

## RESERVE BORDERS FOR CUT FLOWERS.

THERE is an ever-increasing demand for cut flowers, but not always an inclination to rob the borders to obtain them, and sometimes when this is done there is a feeling that the display in the borders is not so good as it might be. It must be remembered that the flowers cannot be enjoyed both on the plant and in the vase. So it comes about that where the demand for cut flowers is great it is always advisable to have a fair amount of ground in some part of the garden where they can be grown for this purpose alone, and a judicious selection made so that the season is of long duration. This can now be easily effected and at very little expense, except, of course, where there is a demand for choice varieties in the different species, and we could just now (early in October) cut plenty of Delphiniums, Pyrethrums, Coreopsis, Pentstemons, and Chrysanthemums in variety from plants that are the result of seed sown last March, and that are still in the border where they were pricked out waiting to be transferred to other quarters. Specially good just at present is *Pentstemon barbatus coccineus*, with spikes quite 5 feet long. It is a good plan to bastard trench the border for the reception of plants under notice, and to work in a fairly liberal dose of manure between the spits, as deep rooting and moisture-loving plants, and indeed all things, will be benefited by this treatment. A good surface mulching is also beneficial. It is impossible without monopolising too much space to give a list of the many things that are suitable; one important fact may, however, be emphasised, viz., that whatever the amount of space available a good variety of things should be planted, embracing a season that will extend right away from the earliest Daffodils until the latest Sunflowers and Asters. After one or two season's experience special favourites may be noted and added to as deemed necessary. For instance, Daffodils, Spanish and English Irises, Montbretias, white Pinks, single Pyrethrums, the *Pentstemon* noticed above, and perennial Asters are always in great request.

E. BURRELL.

## THE ROSE GARDEN.

### WEeping ROSES.

A WELL-DEVELOPED weeping standard Rose is a thing of beauty. Being isolated as it should be upon a lawn, or grouped by the main walk, the huge heads of growth after the trees have been planted some four or five years are very charming, surpassing, in the opinion of many, all other flowering weeping trees, and producing, as Dean Hole says, "a fair dome of Roses." A Rose garden is certainly not complete without a few weeping Roses; not, of course, grouped in formal lines, but placed where the trees will stand out well. As weeping Roses attain to such large dimensions, obviously they need special care when planting. They are usually budded upon the finest Briar stocks procurable, and should have an abundance of fibrous roots if they are to be a success. The thick-



ness of stem is no criterion as to the vigour of the tree. A young, thrifty Briar will quickly overtake the stout hide-bound specimens often seen, so that when selecting weeping Roses this important point should be remembered.

For each tree I would recommend that the ground be trenched 2 feet to 3 feet deep and from 2 feet to 3 feet wide each way. If the soil is at all poor, replace with better from the kitchen garden or add some good turfy loam. Manure, well decayed, should be incorporated at the rate of about one-fourth the bulk of soil. After allowing the latter to settle a few days the trees may be planted. Iron stakes, the same height out of the ground as the stem of the tree, should be first placed in position, then a hole opened wide enough to allow the roots to be spread out without bending them. The roots, having been previously wetted and jagged ends smoothed over, should be placed about 9 inches below the surface. Some well-prepared compost gently worked in among the finer roots will give the trees a good start. More soil is placed in the hole and firmly trodden, the final soil being allowed to remain somewhat loose, and the surface covered with short manure. On no account allow grass to be laid nearer to the stem than 12 inches, the ground being covered with Pansies or some surface-rooting plant if the bare soil be objected to. The method of pruning weeping Roses varies according to age. For instance, the first spring after planting the growths should be cut back rather severely to promote long, pendulous young shoots. The following year these shoots should not be pruned at all, but a wire frame placed beneath them and the growths regulated by tying to this frame. These growths will send out numerous spurs or laterals, which are shortened back each spring. As the heads become dense, cut out a few of the oldest growths, which will induce new ones to break, and thus give to the tree a youthful appearance. When established, aids to good cultivation consist in liberal doses of liquid manure during winter and also in May and June, and again after flowering, and, if at any time it is thought that the liquid does not reach the roots readily, holes made with a

crowbar round about the stem and afterwards filled up will create a passage and also admit air to the roots. Formerly, the

#### SELECTION OF VARIETIES

suitable for this purpose was limited to the Ayrshires and sempervirens Roses, excepting the Boursault and Hybrid Chinas, which were anything but suitable, but now the introduction of that charming tribe *Rosa wichuriana* and the varied variety of *R. multiflora* has given the planter a more extensive selection. The accompanying illustration of *R. thoresbyana*, or Bennett's Seedling, faithfully depicts this lovely Rose to perfection, and when its growths touch the ground the effect is very fine. Other good kinds of *R. arvensis* are *Ruga*, *Dundee Rambler*, *Queen of the Belgians*, *splendens*, and *Virginian Rambler*, and from the group of *R. sempervirens* three of the loveliest are *Félicité Perpétue*, *Flora*, and *Myrianthes Renoncule*. But I think all of these must give place in gracefulness of growth to the hybrids of *R. wichuriana*. The fine pot-grown specimens of some of the newer varieties exhibited at Holland House in June last were object-lessons of the possibilities of this group, and these will be well supplemented by that most charming addition *Dorothy Perkins*.

There is one kind I should like specially to direct attention to, and that is *Evergreen Gem*. Rather a shy bloomer, it nevertheless makes up for this by its graceful growth. The slender shoots and neat foliage must be seen to be fully appreciated. Then, too, the charming group of *R. multiflora*, such as *Crimson Rambler*, *Aglaia*, *Euphrosyne*, *Thalia*, *Electra*, and *Queen Alexandra*, add a rich variety, every one of them capable of making a perfect floral picture.

I am persuaded the future demand for standards will be for Roses of this character and Roses that make fine large heads. The stumpy-headed kinds of the *Baroness Rothschild* type must give place to the glorious headed trees such as the kinds already mentioned, and also of lesser vigour but more perpetual type of *Grüss* an *Teplitz*, *Mme. Alfred Carrière*, *Aimée Vibert*, *Corallina*, and many others.

PHILOMEL.

## THE ROCK GARDEN.

### ROCK GARDEN - MAKING.

#### II.—SUITABLE AND UNSUITABLE SITES.

IN introducing the subject of rock gardening I have already pointed out that no rock garden can be a success unless it represents a piece of wild, rugged Nature. Hence it follows that the site for a rock garden must under all circumstances be an irregular one. And if it is not naturally irregular it must be made so by excavation or filling. An unsuitable site can never show rockwork of any kind to advantage. Even if the rock itself should have been skilfully executed it will look out of place if the site and its immediate surroundings do not justify its presence. Such would be the case, for instance, near a large mansion standing on a flat expanse of almost level ground. In such a position the repose or dignity produced by an extensive lawn would be entirely destroyed by the unjustified introduction of rocks on almost level ground. Even if, where the rocks are desired, irregularity is produced by sinking a large pit, a rock garden on such a site would still look unnatural. If the surrounding ground is flat the artificial depression would be meaningless, and it will appear as if it had no business to be there and ought to have been filled up. It is seldom possible to produce a good rock garden near a house, as, naturally enough, in almost every garden the immediate surroundings of the house would be treated with more or less regularity.

The case is different, however, if the house stands on hilly ground, or, if in order to produce the level space required for the house, it was found necessary to cut deeply into the hill, leaving steep banks almost close to one side of the building. By still deeper excavation and by making irregular recesses such a site can often be made most suitable for a rock garden. In all probability it would be possible to face the rough, irregular banks with stones in such a way as to convey the idea that the house was built in a large recess sheltered on one side by natural rocks. Nor would it be necessary to face the whole bank with stones, for often a somewhat scattered appearance of rocks protruding from the surface only here and there looks more natural and picturesque than more massive structures, to say nothing of the greater facility in construction and the reduction in the cost.

The most unsuitable sites for rock gardening are long, straight, and narrow borders. For wall gardening they may be ideal sites, but to produce in them the natural appearance demanded by a rock garden will in most cases be found impossible. The site for a rock garden should not be near large trees. Not only would it be impossible to grow the choicer kinds of alpine plants under the drip of trees, but the latter would also send their hungry roots into the crevices prepared for the rock plants. They would not only exhaust the ground but would in time dislocate the stones by the swelling of their roots. Where it is impossible to keep the rock garden far enough away from such trees as to be out of harm's way, it would be best to cut a



NO. I.—A SUITABLE SITE FOR A ROCK GARDEN, SHOWING PREPARATORY WORK.



deep, narrow trench, say, 12 feet or so in depth, filling this with a concrete through which even the roots of large Elm trees could not penetrate. This, however, adds considerably to the cost. In laying out a garden it often happens that after the more or less regular parts near the house have been completed satisfactorily there remains some remote corner which is quite irregular, and the owner is at a loss to know what to do with it. The probability is that such a spot could be made into an ideal rock garden. Such a site is shown in illustration No. 1, which represents the ground set apart for a large rock garden constructed in some extensive private grounds at Paignton. That the site was a suitable one may be gathered from the second illustration (No. 2), which was prepared from a photograph I took twelve months later. In the centre of the first picture will be seen four large Palms (*Chamærops excelsa*). In the second picture the same four Palms appear more to the right, because the photograph was taken from a slightly different point in order to obtain a better view of the now completed rocks in the background. I shall again refer to these illustrations during the next paragraph on

#### PREPARATORY WORK.

The work required for preparing the site chosen for a rock garden is of a very varied character, according to circumstances. If the ground is comparatively flat it will be necessary to excavate in some places and fill up the extra soil so obtained in other places in order to ensure that indispensable irregularity of outline. But even if the ground is already irregular it will, as a rule, be advisable to make that irregularity still greater. Thus by deepening a recess, and by still further projecting a prominent part, we emphasise the irregular effect.

Sometimes constructors of rock gardens have the soil roughly shaped to represent the desired effect as it would appear when the stonework is complete. This principle I consider altogether wrong and most misleading; besides this it hampers the work, and is more expensive from the fact that soil has to be shifted several times over. During my own practice I have always found it most desirable to have a great deal too much room rather than not enough, and I hold that rock building should commence with the stones and not with the soil. If there is plenty of space one is at greater liberty, too; as regards outline, the best method of rock building I have always found to be filling in the soil behind the stones as the work proceeds, and not placing the stones on the top of a heap of soil as is so often done. Where a recess is wanted it should be excavated very much deeper than really required, allowing not only for the thickness of the stones to be placed against its sides, but also for a fair quantity of good soil to be filled in between the stones and the remaining bank.

Most important is preparatory work in connexion with water, such as the construction of a new pond or streamlet. Especially is this the case when there is not a constant stream of water, but when the supply is limited and it is necessary for the new pond or streamlet to consist of cement work which is to be masked with soil and stones afterwards. If the space allotted to such a pond has to be



NO. 2.—THE SAME SITE AS ILLUSTRATION NO. 1 TWELVE MONTHS LATER.

entirely excavated out of solid ground, the sides of the pond would be cut to the proper shape, and the cement concrete would be placed against these sides in a somewhat sloping position. But if (as was necessary in the case represented by illustration No. 1) the conditions are such that a portion of the pond would be on a higher level than the ground was before, then stout walls must be built, which are afterwards supported by large quantities of soil, forming outside banks in such a manner as to be dipping towards—not away from—the water. I shall go more fully into this matter when speaking of water gardens in connexion with rocks, but one most important item in connexion with preparatory work for ponds must be pointed out here. In order to prevent the cement concrete or walling of a pond from being visible after the work is complete, it is necessary to build a kind of shoulder about 6 inches or 8 inches below the actual water-level. This shoulder is to support either stones or turf which might thus dip right into the water and prevent a stiff appearance.

In the background of illustration No. 1 such a step or shoulder is clearly visible around the space for a pond close by the large trees. Illustration No. 2 shows in the foreground a small portion of the same pond twelve months later. The stones and turf are resting on this shoulder below the water-level, and not a trace of the shoulder or masonry of any kind can be discerned.

With regard to other preparatory work I may briefly mention that, as a matter of course, good drainage must be provided, and that in excavating portions of the ground good soil and bad soil should never be mixed before the actual rock building commences, but should be put aside in separate heaps easy of access when wanted. It would also be well to deposit the stones or other materials required not too close to the place where they are to be used, and to spread them out so that any individual stone might be easily selected without turning

over the whole heap. If the stones are deposited "best side upwards" it will greatly facilitate the work and save a lot of turning over. If placed too close to the field of operations the stones are too apt to be in the way, and sometimes have to be moved several times.

#### APPLIANCES FOR MOVING AND CARRYING STONES.

When the rock garden is on a large scale, necessitating the removal of stones weighing sometimes several tons, a small trolley running on portable rails, like a miniature railway, will be found of enormous advantage in saving labour.

Illustration No. 1 shows a stone about a ton in weight resting on such a trolley, which can be easily pulled along the rails. The rails are shifted in any direction within a few minutes, and are supported by planks. This method, however, would of course apply only to work on a very large scale. A most handy appliance is a little two-wheeled trolley with a long pole, which might be made to act as a lever in loading the stone. But stones up to two tons in weight can easily be shifted without any other appliances than planks, rollers, and iron bars or wooden hand-spikes as levers. If such a stone rests on a broad plank or, better still, on a couple of short planks clamped together side by side and running on rollers supported by planks on the ground, it will be found an easy matter to move it by forcing it on with levers. For hoisting heavy stones a large tripod and double blocks are usually employed. If it is possible to land the stones so that, in order to be put into position, they have to be let down instead of being hoisted, an iron winch will be found most useful in letting them down gradually. This will be treated more in detail when dealing with the actual fixing of stones in a subsequent chapter.

*Elmside, Exeter.*

F. W. MEYER.

(To be continued.)



## GARDENING OF THE WEEK.

## INDOOR GARDEN.

RICHARDIA ETHIOPICA.

**G**ROWERS differ somewhat in their treatment of this plant. We have for several years planted part of our stock out in trenches, and the other we have kept entirely in pots, allowing them to go to rest and remain dormant until early in August. By both methods the plants come into flower during September, and produce spathes all through the winter months. They should be placed in a situation fully exposed to light and sunshine in order to get the growths well matured. Plants for an early supply of flowers may be placed in a warm temperature, affording plenty of light and moisture. An excess of water at the roots should be guarded against. When the pots are full of roots plenty of manure and soot water should be given them. *R. elliottiana* should be allowed to go to rest by gradually withholding water. The pots containing the tubers may be placed under the greenhouse stage on their sides until starting time.

## WINTER-FLOWERING PELARGONIUMS.

These are now coming into flower, and should be given a warm and rather dry temperature, allowing the plants all available light. Watering ought to be done in the morning. Spot and decay at the base of the stem are often caused by faulty watering. Stimulants should be carefully administered during winter. Freely ventilate on favourable occasions, avoiding cold draughts, which are most injurious.

## FUCHSIAS

that have passed out of flower should have less water, so that the plants will gradually go to rest. Fuchsias when dried off too suddenly often have their roots killed. The soil should remain slightly moist during winter, for the plants will then be in a better condition than if it is quite dry. Store the plants in any dry situation where frost can be excluded.

## IXORAS

are amongst the most handsome and useful of stove-flowering plants, and it is difficult to understand why they are so little grown. Short-jointed and moderately firm cuttings should be inserted singly in small pots and plunged in a propagating frame having a brisk bottom heat. They thrive in a compost of fibrous peat, leaf-soil, and sand. Cuttings rooted now, if kept potted on, given a high temperature, and supplied with plenty of moisture will make nice flowering plants in 4½-inch pots by next June. Specimen plants which have ceased to flower and have made free growth should receive less water at the roots. They should be sponged over frequently, and the stems well searched for scale, to which they are very subject.

## MALMAISON CARNATIONS.

Very little water will be required at this season, moisten the leaves, keep the house dry, and give air at all times. Keep a sharp look-out for insect pests and vapourise with XL All.

JOHN FLEMING.

*Wexham Park Gardens, Slough.*

## THE FRUIT GARDEN.

## PLANTING BUSH FRUIT TREES.

Owing to the bad weather the planting season of hardy fruit trees will be later than usual this year. Assuming that preparations as previously advised have been made for the work, there should be no delay in commencing when the foliage falls by taking those trees in hand that become bare first. In planting, the depth to place the bush in the soil is of considerable moment, and usually they may safely be planted the same depth as they were before being lifted from the nursery. The roots after having their jagged ends removed by a clean upward cut should be spread in a slightly declining position in shallow holes. Avoid planting when the soil is wet or cold, and place fine soil im-

mediately around the roots, making the whole quite firm by treading, and complete the operation by mulching with short litter. Should the roots be dry when the bushes are received soak them in water before planting.

## RED AND WHITE CURRANTS.

These prefer an open sheltered situation and a well drained loamy soil, not too stiff. Young properly furnished bushes possessed of short stems should be selected, and when plantations are formed the rows should be 6 feet apart each way. Trained plants with branches about 10 inches apart and cordons are suitable for planting against walls or upon trellises, and in this way can be conveniently protected from birds. Standards upon 3 feet stems planted by the sides of walks are both ornamental and prolific. The following are excellent red varieties: Cherry, Fay's Prolific, Red Dutch, Raby Castle, Knight's Early, Warner's Grape, and La Constance; white varieties, White Cut-leaved, White Grape, and White Versailles. Gooseberries require similar treatment, but in planting, for the sake of convenience in protecting them from birds, keep the dessert varieties from those grown for gathering the fruit in a green state. Red Warrington will prolong the season if planted against a north wall.

## BLACK CURRANTS.

Unlike most fruits these do not resent a somewhat shaded position, and they delight in a tolerably damp heavy soil. They are, however, impatient of exposure to strong winds, and if subjected to them, especially if grown upon single stems, they are very liable to be much disfigured and broken.

## RASPBERRIES.

Amongst bush fruits these take a high place for preserving purposes, Superlative, Red Antwerp, and Carter's Prolific are reliable red sorts. The best yellows are Yellow Superlative and Yellow Antwerp. Of autumn bearers, Belle de Fontenay, October Red, and Yellow Four Seasons are useful. For private garden culture the Raspberry is best grown in rows from 5 feet to 6 feet apart, with the plants 2 feet asunder, and supported by permanent trellises.

## FILBERTS AND COB NUTS.

The fact of these having been very prolific this year, while other hardy fruits have been generally scarce, may give an impetus to their culture, particularly as they succeed in many cases upon land, provided it is drained, too poor for other fruits to flourish upon. Twelve feet is a suitable distance for the bushes to be planted apart, and of varieties Kentish, Webb's Prize, and Cosford Club are good Cobs, and Prolific, Red Exhibition, and Purple-leaved desirable Filberts.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

## ORCHIDS.

## HEATING AND AIRING.

In the *Phalænopsis*, warm *Cypripedium*, and stove Orchid houses maintain a temperature of 70° by night and 75° by day by fire-heat, admitting a little air by the lower ventilators when the weather is not cold or windy; *Cattleya* houses, 65° by night and 70° by day; Mexican houses, 60° by night and 70° by day, admitting air more freely by the lower ventilators and a little by the top ones on all favourable occasions; cool *Cypripedium* houses, 60° by night and 65° to 70° by day, always allowing a free circulation of air by the bottom ventilators, using the top ones when not cold or windy; cool intermediate houses, 55° to 60° by night and 65° by day, admitting air freely by the bottom ventilators and top ones when the outside conditions are favourable; cool houses, 50° by night and 55° to 60° by day with free top and bottom ventilation, never entirely closing the house unless the outside temperature is as low as freezing point.

## WATERING THE PLANTS.

Great care is needed at this season, the genus, species, and variety must be considered, if growing or resting, and watered accordingly. *Phalænopsis*, *Cypripediums*, *Masdevallias*, and many bulbless

Orchids must never be allowed to become too dry at the root or they suffer. *Cattleyas*, *Lalias*, and many of the *Oncidium*s may be allowed to become much drier before water is applied. This also more forcibly applies to *Dendrobium*s, the deciduous species in particular; *Dendrobium Dearei*, *D. revolutum*, *D. atrovioleaceum*, &c., require more warmth when resting, and should not be allowed to shrivel.

## DAMPING THE HOUSES.

The weather must now be taken into consideration. The cool and cool intermediate houses will need but little damping during damp mild weather, when a little fire-heat is required. The *Cattleya* and Mexican houses, too, had better be kept on the dry side rather than have too much moisture in the atmosphere or decay of the improperly ripened pseudo-bulbs may take place. Excess must also be guarded against even in the warm houses or too much moisture settles on the foliage at night, and finds its way down into the axils of the leaves, which sometimes has a very injurious effect upon some species of Orchids, causing the base of the lower leaves to decay. Some of the *Selenipedium*s are quickly affected this way, likewise the bellatulum section of *Cypripediums*, and such others as *C. rethschildianum*, *C. Stonei*, *C. levigatum*, and many of the hybrids derived from plants liable to be affected in this manner.

## SHADING.

The aspect of the different houses must now be considered, and shading dispensed with wherever possible. The *Phalænopsis*, *Cypripediums*, *Masdevallias*, *Odontoglossums*, and such like tender Orchids will still need shading during the brightest part of the day.

## REPOTTING.

Among the numerous Orchids there may be a few plants in the right stage for repotting during the latter days of autumn and winter, but the majority have now been done, and as few as possible should be disturbed at the root after this date.

## SYRINGING.

Little overhead syringing is needed at this season, yet such plants as the *Odontoglossums*, *Miltenia Reezlii*, some of the *Cypripediums*, and plants that are subject to the attacks of thrips are benefited if sprayed lightly overhead once on bright days.

F. W. THURGOOD.

*Rosslyn Gardens, Stamford Hill, N.*

## THE KITCHEN GARDEN.

## GLOBE ARTICHOKEs.

THESE have done well this season, especially of late, and unless we get severe frost good heads may be cut well into November, and they will well repay protecting whenever the glass shows signs of falling to freezing point. The heads should be tied together and three stakes placed round when the slightest covering will make them safe against a few degrees of frost.

The better kinds are much more tender than the common ones, many of which are not worth growing, and to ensure keeping up a good stock of these, strong suckers should be potted up every autumn and wintered in a place of safety, either in cold frames or plunged at the foot of a south wall in leaves or ashes, where they can be easily protected if necessary and planted out early in April. These will give excellent returns in late autumn. The best and most prolific variety to grow is the large green, which has scarcely any prickles. Those raised from seed can never be depended upon to come true. The best purple is very good in quality, but scarcely large enough for general purposes.

## CARDOONS.

Give the final earthing to these, banking up plenty of soil to ensure perfect blanching, without which they are of little use.

## BEETROOT

is a splendid crop this season, and all should now be lifted. Do not cut the foliage but twist it off with the hands, and then store away the roots in the root-room in their different sizes, either in



sand or finely-sifted cinder ashes, and any that may be required for very late spring use will be best if clamped under a north wall, making sure that plenty of protection is given.

CELERY.

Continue to take advantage of fine weather to earth up the latest plantings. Every care should be taken to break up the soil as finely as possible and place it firmly round the stalks, as when slovenly done it never keeps well.

CELERIAC.

If not already done this should be lifted and stored in sand, where it is proof against frost.

LEeks.

Complete the earthing up of the late plantings as speedily as possible, but before doing so make quite certain that the roots are not dry, for at all seasons these require plenty of moisture.

CUCUMBERS.

Much attention must be given to those plants which are expected to yield supplies all through the winter. In the first place there must be plenty of heat at command, both bottom and top, or it will be useless to expect them to do satisfactorily. The plants should now be strong and well established, and over-cropping must in no case be indulged in. Immediately the fruits are of a fair size they should be cut, the ends placed in about half an inch of water and kept in the same temperature as that in which they have been growing, when they will keep in good condition for ten days. The growths should be moderately thinned and stopped one joint beyond where the young fruits show. Syringe with tepid water about 8 a.m. on bright mornings, and again about two in the afternoon. The evaporating pans should be filled with manure water and a small surface-dressing frequently given. Use a light, porous compost, which should be well warmed before applying it. Fumigate frequently when the foliage is quite dry to ward off attacks of thrip and green and black fly, and dust the growths when any sign of mildew appears. Sufficient moisture must be given in a warm condition to the roots or the fruits will be bitter, especially at this season, when they grow slowly, and red spider also will be sure to attack the plants.

FRENCH BEANS.

Make another sowing of these in pots and nurse along near the glass in heat. E. BECKETT.  
*Aldenham House Gardens, Elstree, Herts.*

ORCHIDS.

ORCHIDS AND LEAF-SOIL.

RECENT contributions to THE GARDEN on the use of Belgian leaf-soil (terre bruyère) for Orchids go to show that most authorities wish to preserve a non-committal attitude on the subject, possibly a wise course, but one which is not likely to encourage an enterprising attitude among growers generally, who do not care to risk accidents with valuable plants and prefer to go on in the old and comparatively safe way. The illustration, from a photograph, published with this may help in a small way to dispel doubts as to the suitability of the material for Cattleyas. It shows a plant of *C. Mendelii* which has been in its present

(6-inch) pot for over three years, and is only one of many now growing well in leaf-soil here. A careful examination of the illustration will show that the growths made since the plant was potted are a great improvement on the older ones, and this improvement has been progressive each year, not only in the pseudo-bulbs and leaves, but in the size and substance of the flowers. At first it was thought that there was a slight falling off in the substance, but this was only noticed in the first year, and may have been more fancied than real, or it may have occurred through some slight error of treatment; in any case it has not only disappeared but the difference now is quite the other way. One thing the illustration cannot show, and that is the great



CATTCLEYA MENDELII IN BELGIAN LEAF-SOIL.

improvement in colour of leaf. This is so marked that plants which have made one year's growth under leaf-mould culture can be readily picked out from among others by the dark green, in some cases almost black, leaves. Many of the established plants have their pots quite packed with living roots, which show that they like their quarters. The great points about the successful culture in leaf-soil appear to me to be—first, the mastery of proper watering; and, secondly, in keeping the atmospheric conditions right, so that but little watering is needed, though shrivelling must be avoided. Drainage is a very unimportant matter, as in our case sufficient water to run through the soil is never given, and the single crock used is only to prevent the soil from finding its way through the bottom. At first I think we used too thick a coating of sphagnum moss on the surface, having been advised to use at least 1 inch of this, but the roots then coiled in the moss and did not care to push downwards into the soil. On reducing the moss to less than half an inch this defect disappeared. When

water is necessary it is only given close round the sides of the pot and not sufficient to run over the surface. If leaf-soil comes into general use it will help to solve the question of pruning, for Cattleyas spread outwardly so fast that to keep the new roots within the bounds of the pots some of the old back bulbs and rhizome must be cut away, severing the rhizome some months before disturbing the roots. If potted on intact, increased size of pot would be too great, as it is useless to let the new breaks hang outside the rims, for the roots would not then find their way back into the soil.

We have severed the rhizomes of many plants, and the results of potting these are very promising. It will be seen that the plants are not raised on a mound, but rest at about the level

of the pot rim, and this method is followed in every case without any bad effects on the young leads when they appear.

In addition to Cattleyas, we have used this soil with beneficial results on many Dendrobiums, including *D. Phalenopsis scherzerianum* and *D. formosum giganteum*; Oncidiums, including *O. marshallianum* and *O. varicosum* var. *Rogersi*, also on Vandas and some others; but do not find it a suitable rooting medium for Cypripediums. I may say that I have used only the Belgian leaf-soil, which differs from the home product, as it apparently contains a large quantity of very fine silver sand.

J. C. TALLACK.

*Shipley Hall Gardens.*

NURSERY GARDENS.

CACTUS DAHLIAS AT SILVERHILL PARK, ST. LEONARDS.

DURING late years the improvement of the Cactus Dahlia must be of interest to all lovers of floriculture, and for the rapid strides in its recent development we are in no small measure indebted to the strenuous and successful efforts of Messrs. Stredwick and Son, of Silverhill Park, St. Leonards. A visit paid to their gardens last month, when the flowers were in their full beauty, proved of the keenest interest, and grand new things were met with at every turn. Messrs. Stredwick devote themselves chiefly to the Cactus Dahlia, and this often gives them a point or two when competing with other growers who have several irons in the fire. To do one thing, and to do it thoroughly well, is no doubt best. It was only about six years ago that Mr. James Stredwick, in conjunction with his son, commenced the cultivation of Dahlias for profit; they had for six years previously exhibited as amateurs, and the success of the pastime no doubt stimulated them to take the matter up in real earnest.

We first went through a plot filled with what I thought at first sight were a grand lot of new varieties. "These are all failures; we shall throw them away," was Mr. Stredwick's remarks, and on closer inspection one could detect here and there on some of the plants a flower with a faulty centre, another perhaps a little too heavy or in some other way not quite up to Mr. Stredwick's rigid standard. On my venturing to make a remark on the subject, he replied that with such a wealth of new material as he had to select from



he would not introduce to the public any flower which was not as near perfection in size, shape, colour, height, and habit as is possible. Before sending out new varieties, constancy is also ensured by growing the plants on heavy, light, and medium soils. With regard to the fancy varieties, any flower showing the least tendency to revert to the self colour is rejected. All these precautions indicate a policy to be recommended to those raisers who each year put on the market a flower heralded with a glowing eulogy, which, on being cultivated, frequently turns out to be perfection only as far as its catalogue description.

I next inspected the new seedlings shown and certificated this year, and they were an object-lesson of the careful method of selection pursued by Messrs. Stredwick. H. J. Jones is an absolutely novel flower of most delicate colouring, primrose centre, shading to pink at the tips of the petals; Eva, as nearly pure white as possible, and undoubtedly far and away the best white up to date; W. F. Balding, a shaded yellow of excellent shape; Etna, lilac and buff; and Vesuvius, a most showy and brilliant flower, yellow ground, striped and splashed with crimson-scarlet, another example of the race of fancy Cactus Dahlias of which Alpha, introduced by Messrs. Stredwick last season, was the pioneer. Other good new ones to be noted

view one may safely prophecy that the firm will maintain and enhance its well-known success as raisers and distributors of one of the most beautiful and popular of garden flowers. F. H. C.

## THE FRUIT GARDEN. AUTUMN STRAWBERRIES

**O**F late years more attention has been paid to the culture of the late varieties of Strawberries, and the perpetual varieties have found more favour. Such kinds as the St. Joseph and St. Antoine de Padoue and the alpine have much extended the Strawberry season, although the season for the late varieties cannot in some soils and situations have altogether been favourable, and this points out the necessity of varying the culture. We have the St. Joseph and others on different aspects, and in hot dry seasons such as we have had for several years past, our best fruits were obtained from north or north-east borders, but this year a much better position will be necessary to get late fruits to ripen well. The autumn Strawberries may be

divided into three sections, the true alpine, the hybrid or perpetual varieties, and the summer fruiters, grown for autumn supplies, that is a second crop grown from forced plants or young plants of certain varieties denuded of their first blossoms and made to produce a second crop. New the last named can scarcely be termed autumn varieties, although they can be made a profitable crop, and unless I briefly refer to them I fear some readers may take me to task for omitting them.

### ALPINES.

Doubtless the alpine should come first; these need more care to get the best results. At Gunnersbury House, Mr. Hudson grows them to perfection, and in the autumn gathers fruit daily. The hybrid

varieties are equally well grown; of course these are grown from runners, and the culture is more simple. Raising Strawberries from seed is most interesting, and to be a success should be carried out systematically. Seed is readily obtained of the best varieties from our leading growers, and it is an easy matter to save seed of any good variety and sow early in the year. Some cultivators sow it as soon as gathered, but during the winter months the plants make good progress, and I prefer sowing early in the year. Sow in pans or boxes in light rich soil in frames or in a warm house, and when large enough prick out the seedlings into cold frames on a rich root run, or, what is better, on a bed with a little warmth. In a few weeks transplant to proposed borders in the open, lifting carefully and preserving the roots. The plant is remarkably hardy, and seedlings may be raised in the open ground if sown in the spring in rich soil in drills 6 inches apart. Transplant in rows 15 inches to 18 inches apart and half that distance in the row. For alpine Strawberries it is well to have a well-prepared quarter; they do well on narrow borders under a south or west wall.

The alpine varieties are not numerous. There are about half a dozen really good kinds, and certainly one of the best is Gunnersbury Alpine, a

long, large red bright fruit of splendid flavour and very prolific. Many persons object to the alpine on account of their small size; this is one of the best as regards size. Belle de Meaux is a large red berry of good flavour. The Sutton Alpine is a good fruit, larger than the older kinds, and when raised from seed sown under glass early in the year gives grand fruit the next autumn. The White Alpine is much liked by many; it is a small round fruit, and produced in abundance. There are also the Hautbois alpine, which are noted for their rich aromatic flavour; they are not so much grown as they deserve, for they are very prolific. The two best are the Royal Hautbois and the older form, Triomphe de Orléans. When the alpine are grown from runners it is well to remove the first blossoms to get autumn fruits.

The St. Joseph was one of the first of the useful perpetual Strawberries, and was raised by crossing the true alpine with a garden variety. Its fruits may be had from June to November. The best way to secure a full autumn crop is to remove the first blossom. This forces the plants to make a free runner growth, and on the latter fruits are obtained. If runners are planted in spring in good land, 18 inches between the rows and 12 inches between the plants, and the first blossom removed, the beds will be in good condition by September. I do not advise leaving old plants, except to get runners, or after the runners are taken to get earlier fruits than the younger plants would provide. Much finer crops are secured by autumn planting and one season's crop. I have found raised borders of great advantage for a latest supply. If the soil is wet or clayey the crop is poor. Flowers are often produced so late that they cannot set, and it is a good plan to lift these plants into frames or pots and place them under glass, when good fruit may be had. I have also seen runners potted up in June in  $4\frac{1}{2}$ -inch pots grown on and placed under glass in October for a later autumn supply. There are other good kinds in this section. The new St. Antoine de Padoue is a very good fruit, a cross between Royal Sovereign and St. Joseph. St. Antoine is a larger fruit than the latter, and equally prolific. Louis Gantier is also a perpetual. This is a white fruit (large for this section) and of good flavour. Another variety worth naming in this section is La Constante d'Automne, a very free bearer and very late.

I have referred to plants forced in pots and then planted out for autumn supplies, and for this purpose Vicomtesse Héricart de Thury is very good, and gives a fair return. Though not strictly an autumn fruiter grown thus, it gives two good crops in one year. Another plan to get an autumn supply is to remove the blossoms in July, and late young plants are best for the purpose, or say late runners put out now, planted rather close, and treated as advised. With the advent of the new perpetuals there is now less need of the ordinary varieties for autumn fruiting. G. WYTHES.

### PEACHES IN 1902.

In spite of the want of sunshine we have never had Peaches on walls better for size and colour than those produced this season. Anyone would have thought the flavour would have been inferior, but this is not the case. I have not seen a single fruit split, which is not often the case with some varieties. There can be no doubt that the abundant rainfall in this part of the country suited the trees, ours being a very light soil, and I think to this fact we owe our good fortune, as doubtless in a clay, cold soil the results would have been different. There can be no question that Peach trees require more water than they often receive, as frequently the roots in light soils are dry, and in many cases the walls are responsible for this. The same remarks apply to the Nectarines.

In our case some of the best Peaches this year—and they were really fine—were on those trees that we feared had set a poor crop, but there was a fair crop when the fruits had matured, and this shows the necessity of early and thorough thinning. Anyone would have thought that in such



LATE STRAWBERRY ST. JOSEPH.

were: Raymond Parkes, deep crimson, very free-flowering; Mary Farnsworth, yellow at base, white tips, very pretty; King Edward VII., orange and terra-cotta, very large, incurving; H. F. Robertson, deep pure yellow, described as always fit for exhibition; and Comet (another of the attractive fancy Cactus section), pink ground, speckled and striped with scarlet, of good Cactus form.

Mr. Harry Stredwick, who has throughout been associated with his father in the Dahlia business, and who obviously possesses horticultural enthusiasm, afterwards accompanied us round the large batches of this year's seedlings. In this connexion it may be mentioned that about 6,000 of these are raised annually here. Just before leaving I was shown a large bed entirely composed of all the known white varieties of the Cactus Dahlia, grown in this way for the sake of comparison. One could not help noting the immense improvement of the new St. Leonards varieties on the old Miss Webster, Keynes' White, and the like. It would be well to remark that Mr. James Stredwick's ideal Cactus Dahlia is a dwarf plant, a flower of exhibition size, but escaping grossness or coarseness, claw-like, but not intensely incurved petals, and a full, deep centre, the bloom carried on a stiff stalk well away from the foliage. With these worthy objects in



a season as the past the late Peaches would have been later than they really are, but at the time of writing (September 30) I find our latest varieties are not much later than usual; for instance, we have just cleared trees of Walburton Admirable and Princess of Wales. Of course, such varieties as Golden Eagle and Lady Palmerston, golden-fleshed Peaches and second-rate in quality, are far from ripe yet; but, on the other hand, we have had these varieties in past seasons late in October before being ripe, and this after a hot summer. Another interesting point is the absence of mildew, in spite of the cold weather. So far, we have none on these trees, but we usually have had it badly on some large trees of Royal George in the past.

I am aware with such luxuriant growth on both the Peach and Nectarine this season there may be some difficulty in ripening up the wood this autumn. It would be well, therefore, to cut out old fruiting wood or any not required for extension as soon as possible to allow the sap to reach the trees fairly. In many cases the wood in such seasons as this will be much crowded.

No note would be complete without a brief reference to some of the newer varieties, and among the Peaches we have a splendid fruit in Late Devonian. This season this fruit is very fine and of good flavour; it is a mid-September variety. Thomas Rivers will, I think, be a splendid addition, but in our own case the trees were too young to properly test their fruiting qualities. An older variety but not often seen, the Marquis of Downshire, is a really fine late September Peach, and well worth space in all gardens. The Early Rivers' Nectarine was very fine; it gave us our largest open wall fruits of the season. Though we have fine trees of older kinds, there can be no question as to its usefulness.

Among late Nectarines this season Spenser has been specially good, and is just over from trees on a south-west wall; the flavour is very fine, and the fruits large. The Peaches give so many really good fruits that there is no lack of varieties. Our most profitable late varieties are doubtless Sea Eagle, the Nectarine Peach, and Late Devonian. Grosse Mignonne is a fine mid-season fruit, and to this may be added Stirling Castle, Bellegarde, and Royal George, and Waterloo, Amsten June, and Hale's Early for earliest supplies.

G. W.

## MISCELLANEOUS.

### MARKET FLOWERS AND FRUIT.

#### DAFFODILS AND PEACHES.

IN the illustration we give of the early spring aspect of one of the many large Peach houses in one of our great market nurseries the many-sidedness of the horticultural industry is interestingly shown. Those who have had the privilege of visiting this well-known and successful home of fruit and flowers in early and mid-summer have no need to be told of the splendid crops of Peaches and Nectarines annually produced for the London markets in these capacious houses. What is less known, perhaps, is the fact that these same houses are made to produce another successful and remunerative crop every year, and that without any detriment whatever to the more important and permanent occupants of the houses, viz., the Peaches. The owner of these houses is an enthusiastic cultivator of the Narcissus (as he is, in fact, of everything he takes in hand), and has gathered together one of the best



IN A MARKET NURSERY: HOUSE OF PEACH TREES AND DAFFODILS.

collections in the country. These he forces in thousands every spring in his Peach houses. Planted on the border in the autumn at the fall of the leaf they remain dormant during early and midwinter, but are excited into growth early in the new year by the heat applied in starting the Peach trees, and before the trees are in leaf the crop of Narcissus will have been gathered and disposed of, leaving the house in possession of the Peaches and in as favourable condition as regards a successful crop as if this crop of flowers had not been produced. That complete success attends the working of this dual system is well shown by our illustration.

#### IN A LONDON GARDEN.

As a rule, London gardens are not pleasant to look upon in the autumn time, and principally, I think, because they lack that variety of flowering plants which is so essential to the good looks of a garden throughout spring, summer, and autumn. But few gardens in town, and none too many in the country, can really lay claim to the possession either of interest or beauty during all the seasons just named, although, thanks to the excellent teaching of gardening books and THE GARDEN, owners of gardens are daily becoming more cognisant of the fact that a wealth of flowers may be produced through many months from a comparatively small plot. Most London gardens are at their best during the spring months, many during the summer, and a few in the autumn. The reason of these metropolitan and suburban gardens wearing their brightest apparel so early in the year instead of awaiting brighter and warmer weather, as they naturally should do, is I think due to the fact that practically all their beauty is obtained from bulbous plants. And the reason is obvious, for bulbs, the commoner ones at least, need but very little attention at the hands of the gardener. Once well planted, their brilliant flowers stand the bare cold earth unflinchingly as spring time comes round. To keep the garden attractive during summer time requires the expenditure of considerably more care and forethought. To say nothing of the labour of watering, staking, tying, weeding, &c., there is the periodical thinning out and regulating of the herbaceous perennials, sowing the seed of annuals and biennials, taking the cuttings of this and layering that, the proper

performance of which necessitates the expenditure of much more time than is often available. Of the best plants to make use of for keeping their gardens bright during the autumn months many are still ignorant. Thus the suburban garden generally speaking is at its best in spring, often untidy and overgrown in the summer months, and bare and devoid of interest in the autumn.

Recently I had the opportunity of seeing a London garden that could, however, neither be called uninteresting nor unbeautiful. The Hollyhocks, that once had towered so high as to peep into the neighbouring garden, now show signs of age in their yellow leaves, drooping stems, and fading flowers. Curiously enough some of the bright red singles are still in blossom, while no traces of the double flowered ones remain. Is it that the single blooms of the Hollyhocks last longer than the double ones, especially in a wet season like the present, or do the flowers continue to appear for a longer period? I think there probably is some foundation for the first suggestion, for the close double blooms would be much more likely to decay in a wet cold summer such as we have had than single ones. There are two white Phloxes still beautifully in flower which can be faithfully recommended to the suburban gardener, namely, James McKay and Virgo Marie. The former is a good grower and flowers for a considerable time. The inflorescence is loose and somewhat pyramidal, the flowers are white, with faint streaks of purple in the throat. The variety Virgo Marie also grows well and bears a more compact head of shapely flowers, whose broad petals are of good substance and a good white. Small groups of Sedum spectabile provide welcome colour here and there; it is not by any means a brilliant colour, but the large, somewhat dull red flower heads are not to be despised so late in the season. Even Lilium speciosum rubrum is not yet quite out of flower, although many of the Michaelmas Daisies are now but masses of brown. Their season this year seems to have been exceptionally short, due probably to the excessive rainfall. They have borne myriads of flowers, and these were so thick together that the decay caused by the wet very quickly spread and ruined them. Some of the Sunflowers also are over, but Helianthus multiflorus, maximus, and one or two more still brave the autumn winds. The only Golden Rods now left are Solidago caesia robusta and a dwarf form which bears the name of S. multiradiata nana.



The large and striking flowers of *Pyrethrum uliginosum* are still well in evidence; this year they have been particularly assertive, for the summer rains have had the effect of adding several inches to the normal height of this plant. The early-flowering *Chrysanthemums* are a great boon to the gardener who delights to have his garden presentable throughout the autumn; they provide a variety and wealth of colour, whose value cannot be over estimated. Notwithstanding that practically all the *Roses* in this London garden are Hybrid Perpetuals there is quite a respectable display of autumn flowers. Most beautiful of all of them is Marie van Houtte, one of the very few Tea *Roses* grown here. It is represented by a single plant, but this has continued to produce blooms for the past three months at least, and still bears several exquisite creamy white flowers whose beauty is appreciably increased by the lovely and varied colouring of the outer petals. Crown Prince proves to be well worthy of being classed as an autumn bloomer, for even now it carries several large red flowers, deliciously scented. Maurice Bernardin, beautiful dark red; La France, Comtesse de Ludre, rose coloured; Augustine Guinoisseau, and Sultan of Zanzibar, whose later flowers are rosy red, are other *Roses* of of much value to the London gardener in the autumn.

A. P. H.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### CARNATIONS AND PICOTEES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—What Mr. Molyneux writes in your issue of the 27th ult. on the subject of border Carnations is very interesting. The varieties he mentioned were all raised at Hayes. I wish to point out, without detracting in any way from the merits of those he mentions, that there are in existence other raisers who put into cultivation good Carnations.

To turn to the subject of Carnation shows, so long as the disgraceful "faking" of the flowers—or what is called "dressing"—is permitted, and even encouraged, no good can possibly arise from them, as an entirely false impression of what the flower really is is created. In many cases the entire centre of the flower is first removed and the calyx torn down to the stalk, the collar of card being then adjusted. The petals are arranged symmetrically by the aid of tweezers, and this is termed a flower, and is approved of by the judges and gains good prizes; in short, it is useless to exhibit blooms at first-class shows, in the boxed classes, unless they are treated in this barbarous manner.

If the chairman of the National Carnation Society—who we all know has the interest of the Carnation thoroughly at heart—would only put his foot down and say that for the future such practices should no longer exist, he would be conferring the greatest boon on true lovers of the Carnation and all those who do not use this most beautiful of all flowers as a simple counter for the purpose of getting money prizes. And it could be done. Why not? The cutting off of terriers' tails and the cropping of their ears died hard, but these barbarities, like the mutilation of these flowers, can be and should be stamped out.

In America Carnations are improving annually, and some of the finest winter-flowering varieties come from there now. True, their standard is not exactly our standard; but, apart from their fringed edge petals, they are all richly scented, and are far superior as regards size, length and soundness of calyx, and length and strength of stalk to anything that is grown in this country during winter. Our cousins do not tear their flowers to pieces, but they exhibit them as grown. They are put up in specimen glasses, so many of each variety, open as the day, where the stalk, calyx, and form of bloom

can be thoroughly examined before and behind, and such things as wire and tweezers are unknown.

By this means, which I submit is the only way, anyone can clearly see for themselves what a Carnation really is as Providence intended it should be, and not a mangled remnant, as represented at our shows of the present day.

There are several Carnations now in cultivation which are only fit for exhibition and shows under the present circumstances, in that they look all right when dressed on a card, having large blooms and a striking appearance; but if the visitor has the curiosity to examine the other side of the card he will find, in most instances, it has a badly split calyx, and that the stalk is wired right up to the bloom to make it hold its heavy head straight up. This state of things is all wrong, and if Mr. Martin Smith would only show his disapproval by bashing all "faked" flowers from the tables, and introduce the American system, in at any rate some modified form at first, he would be conferring a real boon upon all lovers of Carnations.

I will now add a few remarks to what Mr. Molyneux says about varieties.

#### SELF CARNATIONS.

*White*.—What has Mrs. Eric Hambro done that it should not be mentioned in the first flight? I do not know any white that is more perfect and refined in every way than this.

*Red and scarlet*.—There is The Sirdar (Charington) and Isinglass (Salter), both excellent in these colours, and I do not think any of the newer dark varieties named are an improvement upon poor old Dodwell's Uncle Tom.

*Pinks*.—Ibis (Douglas), The Major (Spurling), and Little Dorrit (Chaundy) are all good.

*Yellows*.—Miss Audry Campbell is very well, but what has yet beaten the old Germania (Benary)? I have been growing a variety called Lord Roberts, which I have found very satisfactory. Then there is Miss Alley (Campbell) and Golden Fleece (Chaundy).

*Lavender and heliotrope*.—I had the honour of sending out Garville Gem, raised by Williams, and I differ from your correspondent as to Lady Jane Gray being superior. I have seen two or three that are better, but they are not yet in commerce.

#### YELLOW GROUND PICOTEES.

Childe Harold was challenged this year by The Pilgrim (Mathias), and badly beaten on several occasions. Mr. C. H. Herbert, the well-known Carnation authority, of the Sparkhill Nurseries, Birmingham, writes me: "I am very pleased with The Pilgrim you sent me last season; the flower I consider is better than Childe Harold, being a fuller flower and the petals flatter." Lauzan is good, but I cannot say I like the colouring, and there are several sent out lately that are more pleasing, such as Royalist (Douglas), Mrs. Herbert (Herbert), and some excellent varieties from Mr. Chaundy of Oxford.

#### FANCIES.

Duchess of Roxburgh (Gow) is a very good yellow ground, a fine strong grower, and an all-round satisfactory flower. C. R. Thomson and Mrs. Curbstone (Herbert) are both beautiful fancies, besides several others, which, as they are of my own raising, I say nothing about.

Seedling growing is very interesting. I have been for some years occupied in hybridising certain varieties with the hope of some day raising a blue Carnation.

A new Carnation grower, whose catalogue will appear next year, would not be denied, and carried off all my stock. I have, however, reserved to myself an interest should the long hoped-for result be attained.

Planting of all Carnations that are to stand out of doors should be done instantly.

#### SEED SUPPLY.

The supply of seed this season will be very short, owing to the cold summer and absence of sun. I do not know what the result has been in the Northern and Midland counties, but we in the

South are short by about 75 per cent. of our ordinary supply.

The new group of large self-coloured Tree Carnations, about which an article was published in THE GARDEN on July 26, are now safely housed at Welbeck Abbey, the entire stock having been purchased by her Grace the Duchess of Portland.

Dawlish, Devon.

H. W. WEGUELIN.

## THE BEAUTY OF GROUPING.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There must always be happy disagreements in whatever pursuits one may happen to follow, so that I am quite at a loss to understand why your correspondent "M. L. W." (page 220) heads her letter "Heretical Sentiments." Why should the opinions therein expressed be deemed heretical? In the introductory chapter to "Wood and Garden" wise words are written on this subject, which I will quote for the benefit of your correspondent. The passage to which I refer is as follows: "The scope of practical gardening covers a range of horticultural practice wide enough to give play to every variety of human taste. Some find their greatest pleasure in collecting as large a number as possible of all sorts of plants from all sources, others in collecting them themselves in their foreign homes, others in making rock gardens or ferneries, or peat gardens, or bog gardens, or gardens for conifers or for flowering shrubs, or special gardens of plants and trees with variegated or coloured leaves, or in the cultivation of some particular race or family of plants. Others may best like wide lawns with large trees, or wild gardening, or a quite formal garden, with trim hedge and walk, and terrace, and brilliant parterre, or a combination of several ways of gardening. And all (the italics are mine) are right and reasonable and enjoyable to their owners, and in some way or degree helpful to others." Is it not a fact that nine out of ten borders planted in mixture—regardless of any kind of plan—are usually failures? It is small wonder, then, that THE GARDEN has long deprecated the system of muddled planting which has spoilt so many gardens, and is also responsible for the loss of many a good plant and shrub. To some extent I sympathise with your correspondent's remarks as to the monotony of massing if carried too far. The temptation to make too much use of one special plant, so that the eye is tired by its frequent repetition, is a dangerous one. To avoid this the best plan seems to be to allot part of the garden to certain groups of plants, avoiding the use of these same plants elsewhere. This system has been adopted in many good gardens, both large and small, and with marked success. Much of the beauty and interest attaching to the lovely gardens at Madresfield Court is due to the carrying out of this same idea. Then there is another point to be considered whilst discussing this question of grouping plants. A complaint has recently been made that interest is being largely sacrificed to mere appearances. When Forbes Watson attacked the bedding system he complained that its greatest fault was its uninteresting character. "My chief accusation then is," he wrote, "that gardeners are teaching us to think too little about the plants individually, and to look at them chiefly as an assemblage of colours. It is difficult in those blooming masses to separate one from another—all produce so much the same sort of impression. The consequence is, people see the flowers on the beds without caring to know anything about them or even to ask their names. It was different in the older gardens, because there was variety there, the plants strongly contrasted with each other, and we were ever passing from the beautiful to the curious."

Now to my mind this accusation is to some extent applicable to gardeners of the present day. When a new plant makes its appearance we hear little about its individual beauty and a great deal about its effect in the garden. Is this because in the rush and scurry of the present day few of us can spare the time to closely study the beauty of the flower, much less the beauty of stem and leaf? And, by studying the effect that a plant will produce in the garden in preference to its indi-



vidual beauty, are we not sailing perilously near to what Forbes Watson rightly declaimed? Only the other day a well-known hardy plant nurseryman told me that at the present time a plant *must* be showy in the mass to sell. To those of us who love to treat our plants as living beings, to study the beauty of their form and outline, and to learn something of their structure, this cannot fail to be a matter for regret.

It often appears to me that people do not obtain pleasing effects with massing because they fail to grasp what it really means. Too often one sees blocks of colour placed in a disjointed manner the whole length of a border without an attempt at any scheme of colouring or use being made of the grand hardy or half-hardy foliage plants which we now have at our command, such as Yuccas, Cannas, Megaseas, Irises, and other plants with noble leafage. Thus one passes from one mass of splendour to another, till the eye is as wearied by the garishness as it used to be in the old days of bedding-out. One is often told that this is massing, but I take it as being very far from what has been taught of late in the pages of THE GARDEN. Miss Jekyll tells us in "Wood and Garden" that her chief aim is to "try for beauty and harmony everywhere, and especially for harmony of colour." There seems not the slightest reason why those of us who wish to grow a variety of interesting plants cannot do the same. Both Kew and Bath botanic gardens are rich in plants of the most varied character, arranged, as far as possible, to show a wealth of beauty all the year round, and surely it is not too much to express a hope that even in the smallest gardens beauty and interest may ever go hand in hand.

ARTHUR R. GOODWIN.

[TO THE EDITOR OF "THE GARDEN."]

SIR, — I read "M. L. W.'s" and "H. W.'s" letters with great interest. The question must usually end in a compromise with those of us who own small gardens. While we make colour-effects the controlling consideration in our gardening generally, we can reserve one large bed for the flower which gives us so much pleasure and interest. This question is akin to another which has often perplexed me—at what point the increase in quantity of a particular plant ceases to mean an increase of pleasure. Of course, it depends upon the nature of the plant, the position, and other circumstances, so that no general answer is possible. In THE GARDEN of the 27th ult. M. Correvon speaks of *Primula cortusoides* as strong crimson. The plant I have known under this name is more pink than crimson. I was looking out eagerly for an article on the species of Tulips, for there are few plants more attractive, so I read with pleasure "E. J.'s" article of the 4th inst. Will he kindly say whether he takes these bulbs up every year? In THE GARDEN of the 11th inst. *Cistus algarvensis* is mentioned. If I am right in thinking that *Cistus algarvensis* and *C. formosus* are nearly alike, I should like Mr. Arnott to know that *C. formosus* is quite hardy here. There are several large bushes in this garden, and when in full bloom with forty or fifty flowers on each bush their beauty is striking indeed.

Coed Efa, near Wrexham.

F. A. STURGE.

## HISTORY OF THE AMERICAN BEAUTY ROSE.

[TO THE EDITOR OF "THE GARDEN."]

SIR, — In this year's April number of a splendidly illustrated paper, *Country Life in America*, there is a passage which in the main confirms Mr. Peter Barr's remarks upon the introduction of this Rose into American commerce. It runs as follows:—

"The famous American Beauty Rose is often said to have originated in (George) Bancroft's garden. The facts are these: In Bancroft's garden were several varieties lately imported from France. One had no label. This was much admired by a florist named George Field, who happened to be looking over the place in company with Bancroft's gardener. Field asked for a cutting. He got it. Field and his brother worked quietly away for several years until they had a big stock, and then they advertised their novelty as the American Beauty Rose. They are said to have made a small fortune out of the transaction. The American Beauty has since become the most famous of all sorts in the United States. Some time after Field and his brother introduced the American Beauty horticulturists began to investigate its origin, with the result that its proper name was found to be Mme. Ferdinand Jamin, the name it had in France before, and a plant of it had been sent to Bancroft's garden, where the label was lost. This variety is of no importance in France or in Europe. In fact, the American Beauty has become so much modified by American conditions that some think

collection of Roses in October. So many are now interested in autumn Roses that we give a complete list of the varieties in Messrs. Frank Cant's collection.

### HYBRID PERPETUALS.

Captain Hayward and Mrs. R. G. Sharman Crawford.

### HYBRID TEAS.

Antoine Rivoire, Camoens, Caroline Testout, Clara Watson, Grüss an Teplitz, Irish Glory, Killarney, Longworth Rambler, Mme. Abel Chatenay, Mme. Ravary, Papa Gontier, Rainbow, Reine Olga de Wurtemberg, and Rosette de la Legion d'Honneur.

### TEAS AND NOISETTES.

Adeline V. Morel, Anna Olivier, Billiard et Barré, Catherine Mermet, Corallina, Enchantress, Francis Dubreuil, General Gallieni, General Schablikine, George Nabonnand, Isabella Sprunt, Janet Lord, Lady Roberts, L'Idéal, Mme. Berkeley, Mme. Chedane Gui-



MESSRS. FRANK CANT AND CO.'S GOLD MEDAL GROUP OF ROSES SHOWN AT THE DRILL HALL, OCTOBER 7.

it is a practically different variety from Mme. Ferdinand Jamin . . . The article is signed "W. M." Thinking this may be of interest to you or some of your readers I send you the passage.

ROLLO MEYER.

Cliphill Rectory, Ampthill.

## OCTOBER ROSES.

MESSRS. FRANK CANT AND CO.'S GOLD MEDAL EXHIBIT.

ON Tuesday, the 7th inst., at the meeting of the Royal Horticultural Society in the Drill Hall, Buckingham Gate, Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were awarded a gold medal for an exceptionally beautiful collection of Roses, an illustration of which we are able to give. It was generally admitted to be the finest display of Roses ever seen at so late a date, and we believe that never before has a gold medal been awarded to a

noisseau, Mme. Falcot, Mme. Hoste, Mme. H. de Potworowska, Mme. Louis Poncet, Mme. Pierre Cochet, Mme. René Gerard, Maman Cochet, Maria C. Reine d'Espagne, Marie van Houtte, Marquise de Vivens, Medea, Mrs. B. R. Cant, Muriel Grahame, Papillon, Princesse de Sagan, Raoul Chauvry, Rêve d'Or, Safrano, Souvenir de Catherine Guillot, Souvenir de Pierre Notting, Souvenir de Therese Levet, The Bride, White Maman Cochet, and William Allen Richardson.

### DWARF POLYANTHA ROSES.

Cecile Brunner, Etoile d'Or, Gloire des Polyanthas, Leonie Lamesch, Marie Pavie Perle des Ronges, and Perle d'Or.

### CHINA ROSES.

Cramoisie Supérieure, Fabvier, Mme. E. Resal, and Queen Mab.

### HYBRID SWEET BRIARS.

Catherine Seyton and Edith Bellenden.



## SOCIETIES.

### UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE sixteenth anniversary dinner was held at the Holborn Restaurant on Thursday, the 16th inst., Arthur W. Sutton, Esq., F.L.S., V.M.H., presiding. There was a record gathering, no less than 111 persons sitting down to dinner, and the occasion proved one of the most enjoyable in the history of the society. By the kindness of the chairman excellent instrumental music was discoursed during dinner by the Alexandrian trio. Amongst those present we noticed Messrs. G. J. Ingram, James Hudson (treasurer), E. Sherwood, R. Dean, Dawkins, S. Mortimer, C. H. Curtis, A. J. Baker, George Gordon, J. Heal, and others. Telegrams regretting their absence were received from Messrs. Peter Kay and H. J. Catbush.

After the loyal toasts had been proposed, and reference made to the donation from His Majesty the King to the fund for building the new horticultural hall, the chairman gave the toast of "The United Horticultural Benefit and Provident Society." Mr. Sutton said that he had read up the work of the society and could think of none doing better work or that was better managed. The speaker made special reference to the benevolent fund, pointing out that this helps members after they have been on the sick fund for twelve months, those who are over seventy years old, and also the widows and orphans of deceased members. The convalescent fund Mr. Sutton thought was also well worthy of support, but suggested that its funds should be more liberally disbursed. Now thirty-six years old, the society was prospering as it never had done before. Twenty years ago there were but 88 members, now the number is 974, and this it was hoped would be increased to 1,000 by the end of the year. Twenty years ago the invested funds were £6,800, to-day they were £20,000. Speaking of lapsed members, Mr. Sutton said those who are unable to continue payment do not lose their money. He also referred to the economical manner in which the society was managed, its great usefulness, and the fact that the committee were anxious to increase the number of honorary members from between 70 and 80 to 100 by the end of the year. Mr. Sutton concluded by sincerely commending the toast he gave.

Mr. James Hudson, V.M.H., treasurer of the society, responded. He said the benefit fund was strong by reason of the subscriptions. The benevolent fund was not quite so satisfactory, because honorary members were not so correspondingly numerous as were the benefit members. The future of the society will be what gardeners make it; unless they help themselves they must not expect help from others. Mr. Hudson concluded by urging gardeners to join, and hoped the members would obtain other members.

Mr. C. H. Curtis, in proposing the "Honorary and Life Members," said the society wanted honorary members chiefly to advocate its claims and take a greater interest in it than they otherwise would do. The £20,000 they had invested represented rather more than £20 per member, thus placing them in an unique situation. Mr. Curtis suggested that presidents of local gardening societies should help all they could. In the absence of Mr. Herbert J. Catbush, Mr. A. J. Baker briefly replied.

Mr. George Gordon, in proposing the toast of "The Chairman," referred to the very valuable help that Mr. Sutton gave to gardening institutions. Mr. Sutton, in replying, made lengthy reference to gardening and gardeners. He pointed out how ancient and honourable a calling that of the gardener is, and spoke of the gardens in Palestine, immortalised in Scripture. Of these Mr. Sutton was able to give interesting particulars, as he has had the pleasure of visiting them. The ennobling influence of gardening was dwelt upon by the speaker, who concluded by hoping those present would take to heart the lessons that are to be learnt from gardening.

The toast of "The Visitors" was given by Mr. C. F. Harding, and responded to by Mr. Richard Dean. Mr. W. Woods gave "The Press," Mr. W. P. Thompson replying. Pleasant music (which was under the arrangement of Mr. W. Morris of the Gunnersbury Gardens), excellent recitations, and a thought-reading séance given during the intervals between the speeches were much appreciated.

The following statement of the work and privileges of the society was presented by Mr. J. Hudson (treasurer) to the chairman (Mr. Arthur Sutton):—

"This society has been established for thirty-six years, its rules having been certified and passed on August 3, 1866. Like many other such institutions, its progress at first was slow. Thanks, however, to its friends and supporters, its merits were realised by some of those for whom it had been constituted, and for the past sixteen years there has been an uninterrupted run of prosperity. Twenty-one years ago—in 1881—the membership was only 88; in 1886 it was 177; in 1891 the number was 413; and in 1896, 639. At the last audit the numbers were 904 (end of 1901), but now there are 974 benefit members. The executive hope that the number at the close of this, the Coronation year, will amount to 1,000. The funds of the society have increased in a similar ratio. These in 1891 stood at £6,822; at the close of the last financial year the amount invested and in hand for current expenses were £19,086. At the present time they stand at £20,000 in the aggregate.

"Some of the large benefit societies have heaped up their funds in tens of thousands by the misfortunes of their lapsed members, yet have not so large an average sum per member. In these societies members who allow their subscriptions to lapse lose everything.

#### "THE BENEFIT FUND.

"It is entirely opposed to all reason that in a 'benefit' society any section of its members should profit by the misfortunes of others. It cannot possibly occur in our society. The 'United,' from its commencement, has credited to each member his proportion of the year's working. Thus,

some have now to their credit in the books of the society over £100, to which is added yearly 3 per cent. interest. Each member has to contribute his proportion towards the sick fund of the current year, after which the balance is placed to his own account. A yearly balance-sheet is issued to each member, so that he knows from year to year exactly what funds he has to his credit. And in the event of his decease, his nominee can know at a glance what that balance is. When a member reaches the age of seventy years he can withdraw his balance in one sum, or in smaller amounts. Lapsed members, i.e., members whose accounts have been closed through ceasing to pay their contributions, can obtain their balances upon attaining the age of sixty years, the sum paid to such being the amount standing to their credit when they became lapsed members.

#### "THE BENEVOLENT FUND

is provided for by the contributions of life and honorary members, and by a small annual sum from each benefit member. This fund provides for all members after they have passed the age of seventy years. It also assists members in cases of accident or other peculiar forms of distress, and the widows of such members who die in needy circumstances. The committee appeal urgently for more honorary and life members, so that this fund may be increased in proportion to the number of benefit members. With 1,000 benefit members, the number of honorary and life members should be at least 100.

#### "THE CONVALESCENT FUND

is a purely voluntary one on the part of the benefit members. It was instituted through the kindness, liberality, and business forethought of Mr. N. N. Sherwood. Its funds are devoted to assisting members by a grant, so that they can obtain a change of air during convalescence. In the case of young gardeners who may be in lodgings during sickness, it is an important aid to their recovery.

#### "THE MANAGEMENT FUND

is directed to the working expenses of the society. During 1901, with 904 benefit members, it amounted to £163 14s. 10d., an average of about 3s. 7d. per member, towards which each member contributes annually the sum of 2s. 6d., the balance being made up from the interest of monies standing to the credit of the lapsed members, and by the proceeds from advertisements in the annual report.

"The committee considers that this society in a measure fulfils what has been often urged upon the community at large, viz., the provision of 'old-age pensions.' It is a self-help society, its rules being framed so that the utmost possible return may be made to every member belonging to it, and in proportion to the number of years each one has contributed. The secretary is always willing to supply any information as to scales of contribution, &c. The funds are invested in approved trustee stocks, which yield on an average about 3 per cent."

### LIVERPOOL ROOT SHOW.

THE thirteenth exhibition, under the auspices of the Farmers' Club, was held in a marquee in Great Nelson Street, Liverpool, on the 18th inst. The exhibits and entries quite upheld the high position of previous years, whilst a large number of visitors attended. As in former years, the Lord Mayor of Liverpool attended and opened the show. The Right Hon. the Earl of Derby, K.G., also accords it his warmest support. The exhibits were of a high standard in every department. The Potatoes generally are the main attraction, and they were conspicuous by the quantity and the very fine quality. Owing to the number of classes only the first prize awards can be given. Six tubers in all cases comprised a dish.

#### POTATOES.

White early Kidney of certain varieties, Mr. J. Johnson. Early Sutton's Regent, Mr. J. R. Newton. Early white round of certain varieties, Mr. James Johnson, with small but clean specimens of Superb. White, second early Kidney, of selected sorts, Mr. James Johnson, with Cole's Favourite. White, second early round, of selected sorts, Mr. Thomas Percival, with Royal Standard. Early or second early, any other shape, Mr. Ben. Ashton, with Ideal. Snowdrop or Lord of the Isles, Mr. W. Mackerall, with the former. Reading Giants or Colossal, Mr. Edward Davies, with the latter. Sutton's Abundance, Mr. George Ashley. Sutton's Satisfaction, Mr. James Johnson, with large clean tubers. Up-to-date, twenty-nine entries, Mr. Thomas Reason.

Late Maincrop or Langworthy, Mr. Ben. Ashton, good form. Late Kidney, Mr. James Johnson, with large Excelsior. Late round, Mr. E. Bowen, with Zion House. Late, any other shape, Mr. James Johnson, with Scottish Triumph.

Red or coloured early or second early, Mr. Ben. Ashton, with Reading Russett. Red or coloured early or second early Kidney, Mr. Edward Davies, with clean Fearless Rose. Red or coloured late Kidney, or any other shape, except round, Mr. Thomas Reason, with Edgemoor Purple. Red or coloured late round, Mr. E. H. Wood, for Purple Perfection. Heaviest old or new variety, Mr. James Smith.

#### NEW VARIETIES.

Early or second early Kidney, Mr. James Johnson, with Parker's Seedling. Early or second early round, Mr. James Johnson, with Sunbeam. Late Kidney, Mr. Ben. Ashton, with Webb's Empire; a special award was given, the tubers were large and of fine form. Late round, Mr. James Johnson, with Victory.

Special prizes presented by Messrs. Sutton and Sons.—For three dishes chosen from selected kinds, Mr. James Johnson, with a fine lot of Abundance, Ideal, and Satisfaction, the two first named being given special awards. One dish, any variety, bearing Sutton's name, Mr. Edward Davies, with Satisfaction. Sutton's Reliance, Mr. Thomas Percival.

Special prizes presented by Messrs. E. Webb and Sons.—One dish from selected kinds, Mr. Ben. Ashton. Webb's Veoman or Webb's Renown, Mr. Ben. Ashton, with the

latter. Kidney shape, of selected kinds, Mr. Edward Davies, with Webb's Motor. Late round, from selected kinds, Mr. John Haycox, with Goldfinder.

Special prizes by Messrs. Fidler and Sons.—For Charles Fidler, first prize, Fidler's diploma of merit and gold medal, Mr. John Wilson; Mr. James Needham second, diploma and silver medal.

Special prizes by Mr. W. L. Hutton.—Any new variety, Mr. J. R. Newton, first, with Edward VII.; second, Mr. S. Maddock, with Maddock's Excelsior.

Special prizes by Mr. W. Kerr.—Round, first, Mr. Ben. Ashton, with Enterprise.

Special prizes by Mr. John Niven.—Kerr's General Buller, first, Mr. James Johnson. One dish from selected kinds Mr. John Wilson, with Pioneer.

Special prizes by Mr. H. Middlehurst.—For three Gateacre Swedes, Mr. G. Argyle won the silver cup, with very fine roots. Many other vegetables were also shown.

#### FRUIT.

Six culinary Apples, Mr. G. Faulkner, with Warner's King. Six dessert, Mr. W. Morgan, with Blenheim Orange. Six culinary Pears, Mr. J. Davies, with Uvedale St. Germain. Six dessert, Mr. Thomas Guy, with Marie Louise.

Special prizes.—Six culinary Apples, Mr. W. Mackerall, Warner's King. Six dessert Apples, same exhibitor, with Ribston Pippin. Six culinary Pears, Mr. W. Mackerall, with Pitmaston Duchess. Six dessert Pears, Mr. W. Mackerall, with Beurré Hardy. Any other dish of fruit, Mr. Ben. Ashton, first, with Muscat of Alexandria Grapes; Mr. Thomas Guy, second, with Peaches.

Mr. R. Webster, president, Mr. James Lunt, Halewood, and his stewards made most satisfactory arrangements.

### ROYAL HORTICULTURAL SOCIETY.

A SPECIAL meeting of the Floral Committee was held at Chiswick on the 13th inst., to further examine late flowering Michaelmas Daisies. Some excellent kinds were in flower, several obtaining awards of merit and others being highly commended. Present: Mr. W. Marshall (chairman), with Messrs. J. F. McLeod, C. Jeffries, C. Dixon, R. Dean, W. J. James, E. H. Jenkins, W. P. Thomson, and J. W. Barr.

Awards of merit was given to the following kinds:—*Aster Novi Belgii Ariadne*.—One of the most handsome in the entire collection, and as here grown forming a rather close pyramid, which is both densely and profusely flowered. The solitary blossoms are 1½ inches across, and the colour a good pale blue. We regard this as one of the very finest October kinds. Height, 5 feet to 6 feet.

*Aster Novi Belgii Calliope*.—A showy and vigorous kind, growing about 4½ feet high, and with pale mauve flowers. Of good growth and free-flowering, the bushes were laden with blossoms rather more than 1½ inches across. These two varieties were shown by the Royal Horticultural Society.

*Aster Novi Belgii Elsie Perry*.—An excellent kind in every way, with medium-sized blossoms of a warm rose tint. Height, 4 feet to 5 feet, with strong branching habit, on which the well formed flowers are produced continuously. From Mr. Amos Perry, Winchmore Hill.

*Aster Novi Belgii Coombefishacre Brightness*.—Those who are acquainted with the well-known A. N. B. Coombefishacre will only need to be told that this is a great advance, hence its rather descriptive final name. It is about 4 feet high. It is of bushy and fairly compact habit, and its free-flowering is remarkable. Flowers, medium size, rosy pink in colour, and at their best in mid-October. From Mr. E. Beckett, Aldenham House Gardens, Elstree, Herts.

*Aster Cordelia*.—Despite the obvious cross-bred character of this kind, an item rendering it difficult to classify at sight, it is a free and pretty kind. It is probable that it may prove an almost intermediate between either Novi Belgii or leavis and one of the cordifolius section. The rather conical habit inclines to the last named. The flowers are of the palest blue. Height, 4 feet. From Miss Willmott, Warley, Essex.

*Aster vimineus Delight*.—A charming variety, graceful, free, and beautiful. Height, 3 feet or so, nearly erect, pleasing elegant habit, and smothered with white rosy-eyed blossoms of 1 inch diameter. From Mr. E. Beckett.

*Aster cordifolius elegans*.—This possesses all the merit of typical A. cordifolius, and is more elegant in growth. In common with all this set the blossoms are very numerous. It is nearly 5 feet high; the flowers are white, and tinted with very pale mauve, while the ever-varying white and reddish disc completes a very pretty picture. In dainty and elegant habit, with great freedom of blossoming, these cordifolius kinds are not excelled. From Messrs. Dobbie and Co., Rothsay, N.B.

*Aster acris var. nanus*.—The name here given is not only singularly appropriate, but, one may almost add, amply descriptive of one of the most charming things in the whole collection. It is really a dwarf form of A. acris, but comes into fullest beauty when the type is on the wane, thus being doubly useful. The starry blossoms are just as free as in the typical kind, and the linear leafage the same, but the height is barely 16 inches, as growing at Chiswick, a fact alone that is suggestive of the many uses to which it may be put. It is indeed a most welcome kind to be at its best in mid-October. Planted together with other acris varieties its true habit could be seen at a glance. From the Royal Horticultural Society.

The following were highly commended:—*Aster Novi Belgii semi-plenus*.—This was labelled as received, A. N. B. flore-pleno, but the committee were unanimous in the opinion that such a name would mislead, therefore the modified form as above was put forward. The variety is of quite a promising character, of very good habit, and producing the large pale blue blossoms in which a touch of lavender is also seen. Height, 5 feet. From Miss Willmott, Warley, Essex.

*Aster Novi Belgii Jessie Crum*.—This also came from Miss Willmott. Growing some 4½ feet high, and loaded as it is with a wealth of rosy lilac flowers, it is very bright and attractive even amid the host of good kinds here seen.



In the group of *Chrysanthemums* from Mr. Wells, Redhill, the following varieties were prominent: Lord Alverstone, rich crimson, broad florets, with light gold reverse, very handsome; Mrs. T. W. Pockett, yellow, very fine, but rather paler than usual; Mrs. J. T. Thornicroft, bronze and yellow; Miss E. Fulton, white, very fine; Phyllis, orange.



gold; Mme. Gustave Henry, white; Mme. Von André, yellow, of canary tone, &c. Then around the front was a margin of such as Jules Mary, Carrie, Gertie, and many others of the free-flowering class that grow so well in the open ground. The group was an admirable one, well staged, and the flowers fresh looking and tempting. The silver-gilt Flora medal was well merited.

In that from Mr. H. J. Junea we saw such excellent examples as are rarely seen at these early meetings. The best things in this fine group were Mrs. C. Brooks, white, very fine quality; Mrs. James Mielham, rose-mauve, with silvery reverse, was in splendid form in several places and everywhere good in this group. It is a massive and well-built flower, and fully big enough to satisfy the big flower champions of the day. Mrs. Greenfield, gold; Godfrey's Pride; Lady Audrey Buller, yellow; Miss A. Byron, white; Bronze Soleil d'Octobre, Godfrey's Triumph, M. Paoli Radelli, pure white, &c. In this group, too, were many Palms, graceful Phoenix drooping over the flowers, while a margin of early kinds and a fringe of Asparagus Sprengeri completed as fine a lot as we have seen at any October meeting. There were, indeed, many superb blossoms. Silver-gilt Flora medal.

Some good cut Chrysanthemums were shown by Miss Edith Somers, Bushey (gardener, Mr. Cooper), Mme. Gustave Henry, Hairy Wonder, and Bouquet de Dame being the best.

A similar lot was sent from the Hon. W. F. D. Smith, M.P., Henley-on-Thames (gardener, Mr. Perkins), Lady Ackland (gold), Primrose Dame (yellow), and Mary Perkins (rich yellow) being noted.

Begonia Mrs. D. C. Guthrie is a rose-pink kind, from D. C. Guthrie, Esq., East Haddon Hall, Northamptonshire (gardener, Mr. H. Trueman). This was stated to be a sport from B. Gloire de Lorraine, but there was no evidence of this. The plant also is strongly tuberous.

Nerine corsicans major in fine trusses came from H. J. Lane, Esq., Bexley, Kent, and was much admired.

Mr. W. J. Godfrey, Exmouth, set up a sterling lot of Chrysanthemums of several sections, though notably show kinds, in which he is evidently very strong. For instance, Loveliness (soft yellow), Sensation (bronze and gold), Kimberley (rich gold), Lord Alverstone (crimson, with gold reverse, very fine), Masterpiece and Grandeur (both of the red-crimson type), Exmouth Rival (a superbly dark kind, with finely finished petal, almost velvet-like), and Queen Alexandra (duff-orange) were all good things. Free-flowering decorative kinds were also included, of which October King, Mars, and Pink Beauty were noted in particular. In addition there was a group of Tree Carnation Exmouth Pink, a flower of pleasing shade and rather full. Some others were shown, but no names were to be seen. Silver Flora medal.

The following obtained awards of merit:—  
*Chrysanthemum* Miss E. Fulton.—A fine kind of the incurved type of Japanese, with broad and massive florets of a fine pure white. From Messrs. Wells and Co., Redhill, Surrey.

*Chrysanthemum* Hon. Mrs. Ackland.—A rich golden yellow, fine in build and superb in colour. From the Hon. W. F. D. Smith, M.P., Henley-on-Thames (gardener, Mr. Perkins).

*Chrysanthemum* Mme. Paoli Radelli.—As shown, this massive flower, of the largest size, was of a soft pink tone, whiter near the centre, or rather less coloured at the tips. Other flowers in the Hall appeared white, we believe. The above was shown in capital condition by Mr. Norman Davis, Framfield, Sussex.

*Anemone japonica* Queen Charlotte.—A pink flowered kind of increased size and beauty, and certainly a most meritorious variety worthy of free planting. From Messrs. Barr and Sons, Covent Garden.

*Cinici-fuga japonica*.—This is said to be equivalent to C. simplex. It is the purest kind known, and the most late in flowering. Flowers are produced in dense columnar spikes from amid much divided leafage. Flowers pure white. Shown by Leopold de Rothschild, Gunnersbury House, Acton (gardener, Mr. Hudson).

*Nerine* Miss Carrington.—Flowers of a deep rose-pink, large, with much undulated segments, spikes bold and freely flowered. From Mr. H. J. Elwes, Cirencester (gardener, Mr. Walters).

A botanical certificate was awarded to Nerine flexuosa alba from Messrs. Barr and Sons. The plant is taller than the type, and flowers in company with good arching leaves.

#### THE LECTURE.

##### "SUMMER AND AUTUMN BULBS."

Mr. P. R. Barr, in his paper on the above subject, gave much interesting and valuable information concerning the best bulbs for summer and autumn. The word "bulb" was taken in its broadest sense, so as to include corms, tubers, &c. Ranunculi were first mentioned. These, said Mr. Barr, should be planted 2 inches below the ground. The beauty and value of the Spanish and English Irises was extolled, and the best varieties given. They were said to be amongst the easiest of bulbs to cultivate, September planting giving the best results. Ixias, Calochorti, and Sparaxis were next brought to notice. Ixias like a sunny spot and well-drained soil. The Sparaxis, which require similar culture, are most brilliantly coloured flowers. The Calochorti were one of the gems of June flowers. They are the sole representative of the Tulip family in the Western Hemisphere. The different sections, all of which are hardy, were described. The early Gladioli were very valuable, G. byzantinus and G. Colvillii being very suitable for naturalising. Plant 4 inches or 5 inches deep from October to January in a situation protected from the wind. Many Liliums were mentioned, and these, said Mr. Barr, are best left undisturbed. They like a cool rooting medium and a well-drained soil.

The Alstromerias are good border flowers for July, and with the exception of A. pelegria and A. pulchella may be considered hardy. They are invaluable for cutting. In August we have Gladioli, Tigridias, and Montbretias. We are much indebted to M. Lemoine, of Nancy, for his work

with the Gladioli, said Mr. Barr. From the middle of March to the end of April is the best time to plant Gladioli. The Lilies for August include L. auratum and varieties and the Tiger Lilies. The Tigridias were lovely flowers. They were of easy culture. Plant in March or April. The bulbs should be lifted in the autumn and stored during winter away from frost. In September, Lilium speciosum and Amaryllis Belladonna are at their best. The last-named should be planted at the foot of a south wall, as also should Vallota purpurea. Mr. Barr concluded his essay with a reference to the beauty of autumn Crocuses, the best sorta being given. If the bulbs are planted in July they will flower the same season.

#### NATIONAL CHRYSANTHEMUM SOCIETY.

A MEETING of the floral committee was held at the Royal Aquarium, Westminster, on Monday afternoon last, at three o'clock, Mr. D. B. Crane in the chair. There was a good attendance of members, and many novelties were submitted for their adjudication. The new rule, which requires the support of three-fourths the members present to grant a first-class certificate to any novelty, is having the effect of making it difficult to gain the coveted distinction, and on this account awards by the floral committee from this time forth should therefore be held in high esteem. The only variety, and this a Japanese, to obtain a first-class certificate was

Mme. Paoli Radelli.—This is an immense incurved Japanese bloom of splendid form and capital substance. The florets are very long and fairly broad, neatly curling and incurving at the ends, and building up a very deep flower. Colour, pale rosy bluish tinted yellow in the centre. From Mr. Norman Davis, Framfield, Sussex.

The following variety was commended for its colour:—

Exmouth Rival.—A Japanese bloom of medium size with fairly broad florets of medium length, and somewhat pointed, developing a flower of neat and even form. Colour very deep rich crimson with bronze reverse. This is a bloom of which much may be heard later. From Mr. W. J. Godfrey, Exmouth, Devon.

The committee expressed a wish to see the following varieties again:—

Mabel.—A large loosely built Japanese flower of drooping form, and fairly broad florets of great length. Colours suffused and edged rose, reminding one of Belle Paule. Hon. Mrs. A. Ackland.—A lovely Japanese bloom of even and pleasing form, with broad florets reflexing, and incurving at the ends. The colour is a lovely rich and deep shade of yellow, somewhat approaching the tone of yellow as seen in R. Hooper Pearson, a very promising novelty. Duke of Devonshire.—A large spreading flower with long and fairly broad florets curling and twisting. Colour, a distinct shade of yellow, paling at the ends of the florets, and tinted rosy red. A vote of thanks was accorded Mr. M. Silsbury, Shanklin, Isle of Wight, for a single bloom of a very handsome Japanese seedling named Mrs. F. W. Vallis. This is a large flower with long drooping and broad florets, which build an enormous exhibition specimen, of good form. The colour is deep yellow, striped and suffused reddish crimson.

On Monday evening last the executive committee held a meeting at the Royal Aquarium, Mr. Thomas Bevan presiding. Arising out of the correspondence was a discussion as to the forthcoming Chrysanthemum show at Chicago, which is being organised by the American Chrysanthemum Society, and a letter was read from the secretary. It was announced that every effort was being made for a most successful show, that classes had been instituted for English and French varieties, that a conference would be held, and that the American society would be pleased to see blooms sent over by European growers if any could be induced to do so. Much interest was evinced in the announcement, and there was an evident desire on the part of the committee to express practical sympathy with the American show, but in the present state of things it was decided to defer matters until next year, when the National Chrysanthemum Society's budget might more safely justify some substantial recognition of the sister society's efforts. There is some probability that next year the show will be held at New York.

Owing to the absence of the president (Sir Albert Rollitt), it was resolved that the annual dinner be postponed to suit his convenience. Prize money awarded at the October show amounted to £66 3s. 6d., the amount in Mr. Deverill's classes being in addition. A list of the medals awarded to miscellaneous groups was also read.

An interim financial statement was read by the secretary, and owing to the sale of the Royal Aquarium it was resolved that the sites committee should determine on a place for the annual general meeting.

The secretary of the catalogue committee stated that he hoped the MS. would shortly be in the printer's hands, but the work had been unexpectedly heavy.

Twelve new members were elected, and the Seabrook, Hythe, and Sandgate Mutual Improvement Society received in affiliation.

#### THE HORTICULTURAL CLUB.

AFTER the usual summer recess this club resumed its annual series of dinners at the Hotel Windsor on Tuesday, the 21st inst., this time under the chairmanship of its president, Sir John Llewellyn, Bart., and with an attendance of some thirty members and friends. Prior to the summer the usual business of the club was disposed of, which embraced a contribution of twenty guineas to the Royal Horticultural Society's hall, plans and elevations of which were exhibited by the Rev. W. Wilks. Since the last meeting in June the club has to lament the deaths of two of its esteemed members, Mr. R. Goffton Salmond and Mr. Edward J. Cockett, to whose families it was resolved to send letters of condolence. After dinner, in accordance with the custom of the club, a paper was read by Mr. T. Alfred Rivers on "Pot Fruit Trees for Amateurs," and it need hardly be said that, coming as it did from the ruling representative of the third generation of a family to whom so much is owing by

the world as regards fruit culture and its improvements, the paper in question was of unusual value. Mr. Rivers demonstrated by the record of his experience that good crops of Apples, Pears, Plums, Cherries, Peaches, Nectarines, and even Apricots can be obtained under those quite cold conditions of culture which appeal more to amateur capabilities, and there is no doubt but that the paper and the subsequent discussion it evoked are admirably calculated to foster such cultivation wherever greenhouse space is available. At the conclusion of the paper an animated discussion followed, conducted by such well recognised authorities as Messrs. Bunyard, Hudson, G. Paul, Owen Thomas, Walker, Pearson, and Veitch, and the Revs. W. Wilks and G. Engleheart, whose remarks considerably enlarged the purview of the paper and enhanced the value of the initial points contained therein.

The question of repotting was dealt with, and it was pointed out that as the fine fibrous feeding roots were purely annual, as distinct from the more woody and permanent roots, the tree not only did not suffer by the removal of the former when the season's work was done and repotting effected, but that this was really essential in the interests of the following season's growth and crop. Repotting in practically the same sized pots and in entirely fresh top-spit loam, rammed very hard by successive ramblings as filling up proceeded, was recommended, and valuable hints were given as to the subsequent feeding by mulching composts. As, however, the paper and other points discussed will see the light of print in the Royal Horticultural Society's Journal, we must refer our readers to that for fuller details. We may, however, add that the discussion of the question of quite cold treatment, i.e., in houses entirely devoid of piping or other heating arrangements, led to the generally adopted view of the wisdom of a little provision in this respect, since though in many places it might be safe to dispense with any further protection than that afforded by glazing, both frost and fog in others involved risks at the critical flowering period which it was wise to avoid by a little heat, though only just sufficient to exclude frosts, any forcing methods being altogether outside the area of discussion. Pruning, too, was naturally entered into, and the success of Mr. Rivers' methods was evidenced by some capital photographs of trees, which evoked much admiration, both by the symmetrical form and abundance of bloom which, in most cases, they exhibited. A very hearty vote of thanks was accorded to Mr. Rivers for his very interesting and practical paper, and the meeting then dissolved with the customary feeling that the Horticultural Club had once more established its claim to be considered a useful as well as a pleasant centre of horticultural interests.

## OBITUARY.

### MR. DAVID SAUNDERS, OF FREAR'S WALK NURSERY, CORK.

A WORTHY man, a sincere friend, a great lover of his calling, has just gone to his mother earth, from whose sources while with us he gave by his labour and enjoyment of his work the rich products of many Irish gardens—flowers, fruits, and shrubs. He leaves a great blank behind, being as he was the mainstay at all exhibitions from the metropolis south to Cork. He is greatly lamented by his fellow-citizens, and the gardener out of place never had so good or sincere a friend. A widow and a numerous family have to mourn their great loss, yet few of us but can be done without, and the business will be conducted by his eldest son and his worthy manager. W. B. H.

### MR. COCKETT.

WE are very sorry to hear of the death of Mr. Cockett, who was for many years one of the trustees of the Horticultural Club, and a member of the committee.

## ANSWERS TO CORRESPONDENTS.

**Names of fruits.**—Fenman.—1, Striped Beaufin; 2, Rosemary Russet.—Grover.—The Apple is Dr. Harvey. Allington Pippin is in season from October to December; on heavy soils it will keep longer.

**Names of plants.**—G. E. H.—1, Sedum kamtschaticum; 2, Sedum samentosum. This is not strictly hardy.

—Foreman—Salvia Horminum.

**Salvia virgata** (R. D.).—This is a true perennial, and generally considered hardy. It is a native of Armenia, and the species has long been known to cultivation. You do not mention the colour, but in referring to the plant you speak of "bright clumps," from which we take it you have been attracted by a highly coloured plant. S. virgata is white flowered. Could you send us a spray of the plant you have seen, then we may be able to name it, and it would save you disappointment in the future.

\*. Several answers are left over until next week.



# THE GARDEN

No. 1615.—VOL. LXII.]

[NOVEMBER 1, 1902.]

## WHOLESOME FRUIT.

WITH SPECIAL REFERENCE TO IRELAND.

A CORRESPONDENT OF THE GARDEN

has sent a letter, above the signature of "An Englishman in Ireland," to the *Irish Times* about the recent fruit show at Cork. It is a straightforward and sensible commentary upon the condition of fruit culture in the Sister Isle, but the letter applies with equal force to Britain in general. Fruit growing in England has not shown remarkable developments, though books, pamphlets, and articles have poured from the pens of writers, practical and otherwise—with some effect, it is true—but we have much to learn in spite of wholesale literature and such a splendid show as the Royal Horticultural Society provides each autumn at the Crystal Palace.

We give the following extracts from the letter, which is too lengthy to reproduce in full:—

"As an Apple show pure and simple it was equal to anything I have ever seen at the Crystal Palace, Shrewsbury, or elsewhere, but it was not equal to the great Apple and Pear conference held in the Royal Horticultural Society's gardens at Chiswick a few years ago. All fruits at Cork, except Apples, were only of average quality and limited in quantity. The one strong point in the show was the proof—if proof be needed—that the best Apples can be grown in Ireland as productively, as large, of as good quality, and probably finer in texture and colour than as grown anywhere else in the United Kingdom. Cowper, the poet, wrote long ago on horticulture:—

'If vain your toil, then blame the culture, not the soil.'

And this advice is particularly appropriate to this country at the present time. All that is wanted are more intelligent growers like those now so prosperous in the fertile district around Armagh, or those small fruit growers of one to three or four acres, who have for many years been quietly working away at Gormans-town. A good deal is said now and then about the fine colour of the American imported Apples, but probably no one ever saw Apples so clearly and brilliantly coloured as were a large proportion of those shown at Cork. A splendid collection from the warm limestone soil of Clare took everyone by surprise, as also did many of those from County Cork, and others from the celebrated old cider district, the Blackwater Valley of Waterford. The most brilliant Apple in the show was one named Scarlet Custard (? Costard), with a coat as deeply crimson-scarlet as a Tomato. It is believed to be an Irish seedling. As to good texture, juiciness, and flavour, the Irish-grown specimens of Cox's Orange Pippin and its

parent the old Ribston Pippin could scarcely be equalled anywhere else in the British Islands. Go where one may, all over the length and breadth of Ireland, you will find the best of fruit in private gardens, and as a fact some of the finest Apples and Pears ever exhibited at the Royal Horticultural Society's show in Dublin for many years past were grown at Rathmines, on the sloping banks of the Dodder, by the late Mr. J. F. Lombard, as an agreeable recreation in a busy life of business in town. The Cork show ought to encourage farmers and other cultivators of the land to have a greater and a firmer faith in it than they have hitherto shown, and as one good result it is to be hoped that new growers will commence fruit culture, slowly it may be, by at once planting half a dozen or more of the best kitchen Apples and a similar quantity of eating or dessert kinds. Before planting a few of the very best varieties of Apples in large quantities, it is wise to test the soil and situation by planting a few only; then, if they succeed, it will encourage the safe application of more labour and capital and land. It will take many years and many more fruit growers before we can hope to check American and other importations to our shores. The change of habit in the culture of new or different crops is a slow process everywhere. In France viticulture is hereditary—in the blood, so to speak—just as is the silkworm culture, or the growth and pruning of Olives in Italy and elsewhere. The good work is going on, and on all sides one may see a renaissance taking place in fruit growing, and of horticulture, and woodcraft or forestry in Ireland. It is getting not only 'in the air,' but 'into the blood' of both gardeners and agriculturists. Not only must the best of fruits be grown in quantity, but the production of good fruit is only a part of a fruit grower's business; he must gather the crop and grade it carefully, pack it safely, neatly, or attractively, and, above all, honestly, and then he will have to study transit methods and charges, and all the many vagaries of the best markets. All this the Department is trying its best to instil into the minds of those interested, not only by inaugurating this show, but by the publication of useful literature as to grading and packing methods, &c., and if one may venture to prophecy we shall hope, by the publication as soon as may be of their official report on the Cork fruit show, a vast amount of further good will be effected. As to the great advantages of a more extensive use of good fresh fruit and of fruit produced by the people themselves, nothing need be said, seeing that good and wholesome fruit is like good wine, in so far that it needs only to be seen or tasted to be fully appreciated at its true value.

"The Agricultural and Technical Department is sometimes thought to be working like the mills of the gods, but slow and sure is not the worst of policies. It is only by object-lessons

and demonstrations like those instituted at the Cork exhibition that the masses can be reached and taught to use their land to the best advantage.

"Mankind generally are commonly said to possess only five senses, but there are others, and none higher than a fervent love of the native sod and a high faith in its innate fertility. In any case, self-interest may be appealed to very effectively, and by showing those connected with the land that its produce may be rendered more valuable, and that more profitable crops may often, even if not always, be introduced, is a noble and a national work, and one of the highest and best expressions of true patriotism."

## ROUND ABOUT A GARDEN.

THE SHRUBBERY IN NOVEMBER.

Few places can be so dank and sodden as shrubbery paths at this time of the year. The rain lies in adhesive layers among the fallen leaves which it brought pattering to the ground; and in the close, shrub-sheltered alleys November winds cannot exercise their scanty drying powers, while November fogs drip steadily into water from the shining wet branches overhead. The very ground seems to have entered the conspiracy of dank decay, for it thrusts all its mouldiness to the surface in fantastic shapes of fungi, clammy to the touch, and melting later into black unwholesome-looking slime. The fat-bodied garden spider spins its geometric moisture-spangled web just where you, ducking to avoid a dripping branch, may thrust your head into it. Apart from the irritation of clinging cobwebs on your nose, the large full-fed garden spider is not a good thing to carry off upon your person, in spite of the dainty decoration of its back. It can bite.

A MOIST OPPORTUNITY.

For these and other reasons one wanders less about a shrubbery in November than perhaps at any other time of the year, and if the paths have been neglected in late summer and early autumn they are now so cumbered with dripping grass and decaying weeds that you might as well wade in a brook. Yet more useful work can be done in the shrubbery now than at any other time. The gardener is in possession of the garden proper, for this is one of the periods of upheaval with spade and fork, and wholesale planting, which you may direct and supervise, but cannot perform. So, if you want to mess about with your own hands, you cannot do better than turn to the shrubbery. From late spring to autumn it has been almost out of hand, a scene of rampant luxuriance where, beyond aiding the plants that you like in their struggle for existence against undesirable neighbours, you could do little more than look on, admiring or deploring, as the case might be. But in autumn Nature's exuberant partisanship on



behalf of her own wildings dies down, and she leaves you a clear field.

#### LIKE GOVERNING IRELAND.

Controlling the plant life of a shrubbery is like governing Ireland. You have to treat it with a judicious mixture of kindness and firmness; but you will usually find that it has taken advantage of your kindness to scramble all over the place, so that you are tempted to think you were not half firm enough. But do not attempt drastic measures. Coercion never pays; and if you sternly dig up a wild space in your shrubbery, because you disapprove of its behaviour this year, you will be amazed, if the soil is good, at next year's deluge of weeds—Nettles, Thistles, Twitch-grass, creeping Ranunculi, coarse Umbellifers, and everything unwelcome—that your spade seems to have let loose. Shrubby gardening is work for trowel rather than spade, and it needs botanical judgment; but its triumphs are greater than those of flower-bed gardening, when you can wander down a winding path and discover at every turn dainty flowers flourishing among wildly natural surroundings.

#### THE COMMON OR GARDEN "SHRUBBERY."

Comparatively few people regard the shrubbery as part of the "garden" at all. Fewer still have time to undertake its care; and the trained gardener's traditions are all against such work. In dealing with defined spaces, such as flower-beds, which he can rake and dig, he knows what he is about; but shrubbery work, where you have to treat each plant as an individual in the struggle for existence, and aid it or repress it, according to its surroundings, is too "finicky" for him. Consequently there are few gardens where the shrubberies serve any other purpose than as a fence or a background to lawn or flower-beds. Usually the "shrubbery" is a dense mass of evergreens with a few trees in the middle; where the sparrows roost in crowds and cats prowl after them at night; where toads crawl among the snail-infested layers of dead leaves; but no human being, except a bird's-nesting boy, ever thinks of penetrating its dank and gloomy interior.

#### THE "SHRUBBERY GARDEN."

Now, this is all wrong. If a dense shelter is needed it should at least be planted in a double row with a path between, and at once your impenetrable shrubbery becomes a sheltered pleasaunce, where one or more seats can be placed and where you can plant in the half-shade woodland flowers and Ferns that will flourish better there than in any other part of the garden. The shrubs themselves will grow far better through getting air and light on both sides, and the death of a large evergreen will not then create an unsightly gap in the shrubbery, but merely give you a temporary view of the shrubbery walk with its flowers and Ferns. And this is the season when, trowel in hand, you can discover hundreds of places where these may be judiciously planted. With such common things as Primroses, Forget-me-nots, Rocket, Foxglove, and Evening Primrose, common shade-loving bulbs, and British Ferns, you can effect a magical transformation for next year in the aspect of any neglected coppice or shrubbery; and from year to year, working in autumn and spring, you can add to its charms, until what used to be merely the fence or a neglected annexe to your garden becomes the part where you always linger for pleasure and whither you take your friends with pride.

E. K. R.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

November 1.—Battersea and Derby Chrysanthemum Shows (each two days).

November 4.—National Chrysanthemum Society's Exhibition, Royal Aquarium (three days); Royal Horticultural Society's committees meet; Southampton and West of England Chrysanthemum Shows (each two days).

November 5.—Hanley, Margate, Northampton, Cardiff, Beambridge, Hereford, Sevenoaks, Truro, Southend-on-Sea, Halifax, and Ascot Chrysanthemum Shows (each two days).

November 6.—Chichester and West Sussex Horticultural Show; Cheltenham, Doncaster, Hornsey, Isle of Tooting, Manor Park, Tooting (each two days), Totnes, Ealing, and Evesham Chrysanthemum Shows.

November 7.—Leicester, Bolton, Barking and Ripple, Beambridge, Penzance, Winchester, Woolwich, Thornton Heath (each two days), Waterford, Colchester, and Newport Chrysanthemum Shows.

**Rose Mme. Jules Grolez.**—I am glad to see that the claims of this Rose to that general recognition which it undoubtedly deserves appear at last to be making some progress. At the same time, Mr. Goodwin is not doing the Rose justice when he describes it as scentless. I am afraid he must have been taking his fill at the ever-open fountain of La France before he reached his plants of Jules Grolez—in no other way can I account for his failing to detect its delicate fragrance. At any rate, be the reason what it may, my experience of the Rose is distinctly against Mr. Goodwin's verdict. And, although a Rose in a town or London garden may seem sweeter than it does in a country garden, from the greater contrast of its surroundings, yet it is only seeming after all, and I have little doubt Jules Grolez at Kidderminster is much the same as its cousin in town.—HERBERT E. MOLYNEUX.

**Vittadinia triloba.**—It must be twenty years since botanists tried to teach us that the plant common in gardens and nurseries, and then generally called Vittadinia triloba, the Australian Daisy, really belongs to a different genus, and is rightly named *Erigeron mucronatus*. The two plants are very easily distinguished, but the Vittadinia is hardly ever seen in gardens, though year after year we often see it stated in gardening papers and in nursery catalogues that the two names are synonyms. Vittadinia, as De Candolle and "Index Kewensis" spell the name, though the "Kew Hand List" has it Vittadenia, is a genus of several species, all natives of Australasia or of the Sandwich Islands. The plant described by De Candolle ("Prodromus," Vol. V., page 280) as Vittadinia triloba is now included in the name *V. australis*. It is a weak little bush Daisy, not hardy in Edge Garden, having a very distinct form of leaf, each leaf ending in three equal lobes, joined at the base like three equilateral triangles placed side by side. The flowers are shabby with few rays, and continue white. *Erigeron mucronatus* (De Candolle "Prodromus," Vol. V., page 285. De Candolle wrongly makes the classical Greek name *Erigeron* of the neuter gender) is a native of Mexico. The leaves have two small lateral and one large central division, each of the three being tipped with a spike like the sting of a nettle, but harmless. The flowers, which are considerably larger than those of *V. triloba*, are white when they first open, and turn pink. The plant is perennial, and is quite hardy in Edge Garden, sowing itself on rockeries so as to be rather troublesome. Minute distinctions between *Erigeron* and Vittadinia will be found described in "Genera Plantarum" (Bentham and Hooker, published in 1875).—C. WOLLEY DOB, *Edge Hall, Malpas*.

**Mr. C. Harman Payne.**—The appointment, by the French Government, to the rank of Officier du Mérite Agricole of Mr. Harman Payne, gave the members of the Société Française d'Horticulture de Londres an opportunity of expressing their appreciation of the work of the corresponding foreign secretary of the National

Chrysanthemum Society, and the esteem in which he is held by them. Mr. Payne was on Saturday last entertained by members of the French society and other friends. Mr. G. Schneider presided. The object of the meeting was the presentation to the new officer of a miniature cross of the French Order, which, so far as we are aware, has been bestowed on half a dozen British subjects at most, and then only as Chevaliers or Knights. In calling the attention of the company to the splendid services which Mr. Payne has rendered to horticulture on both sides of the Channel, the chairman specially remarked that this is the first instance of a British subject having been raised to the rank of Officer. Mr. Payne having duly and graciously acknowledged the gift and thanked the company, Messrs. B. Wynne, T. Bevan, and Percy Waterer delivered appropriate speeches, reminding the company of the amount of work which the new Officer not only undertakes, but also carries out successfully every year, and assuring those members present that their guest would always, and in every way, do the greatest honour to the Order which has been conferred upon him by the Government of the French Republic.

**Peach Waterloo as a bush.**—For some years I have tried several of the early Peaches, such as Hale's Early, Early Alexander, and Amsden June, grown as bushes, and, so far, I must say the trees have not given a good return. There are several other varieties, such as Early York and Condor, but the best bush trees have certainly been the Waterloo. This has been our worst season; the severe weather in May played sad havoc with these fruits, and my advice to fruit growers of Peach trees grown as bushes is to give a sheltered position; grown thus there is no question that the fruit obtained is of excellent flavour and beautifully coloured. I think Waterloo, as compared with other varieties, worth a special note, both for its earliness, hardness, and good flavour. I prefer Waterloo and Hale's Early to all others. These American varieties are the earliest to ripen, and if the trees are kept thin so as to mature the new wood they produce fine fruits.—G. W. S.

**The Pershore Egg Plum.**—In the Midland Counties and the West of England this Plum is grown in large quantities; indeed, in the Vale of Evesham and Pershore district I have seen enormous crops. The fruit was unsaleable; but at that time there were no fruit factories, so that doubtless this variety is now made good use of. My note is sent on account of the value of this Plum for cooking and preserving; indeed, I do not know of any variety that gives such a good return as an orchard tree. It does well as a dwarf standard, and few varieties are more robust. In shape the fruit somewhat resembles an egg. It has a clear yellow skin and pale yellow flesh, with a sweet vinous flavour. It may be called an early fruit, as it matures early in August. I am aware that soils greatly influence the crop as regards most fruit, but I have seen this variety in such poor soil and out of way places that I should think it would do well in any gardens where Plums are grown. Unfortunately, the fruits do not keep long, as the skin is very thin, but for home use, preserving, or other purposes they are most valuable.—G. W. S.

**A valuable late Plum.**—Few fruits of recent introduction have proved more valuable to growers than Rivers' Monarch, though this past season was a poor one for Plums. It is not quite a dessert variety, but, like Victoria, is useful for both purposes. It is also catalogued as a dessert fruit by some growers. It is a beautiful fruit, roundish oval, and one of the largest, the colour being dark purplish blue. It is a free-stone kind, of good quality, but not rich. Its value is in its free cropping and its lateness, whilst the fruits do not crack in wet seasons. Grown on a wall they are very fine. We grow it otherwise, and it is most profitable. The tree is a strong grower, and it flowers later than some kinds; but I find it well to give it ample space and not prune it too much, merely thinning out where too thick. The trees fruit in quite a young state, as I noticed three year old trees fruiting grandly.—G. WYTHES.



**Browallia cœrulea grandiflora.**—I think it is much to be regretted that names should be multiplied and new ones applied to well-known plants instead of those already generally accepted which everyone knows, as such a practice can only lead to confusion and the misleading of those who do not know plants. In a recent issue (on one of your unnumbered pages) a correspondent writes in high and well-deserved praise of *Browallia cœrulea grandiflora*, which must, I think, be what is generally known as *B. speciosa major*.—W. E. GUMBLETON.

**Corn Exchange Chrysanthemum show.**—An excellent example of what can be done to assist the various charities is that set by the committee of the above Chrysanthemum show. The members of committee and officers of this society are well known, on the London Corn Exchange, and their object in carrying out this exhibition is two-fold. In the first case, it is an endeavour to bring together in friendly rivalry the members of the corn trade in four classes, exclusively devoted to growers of the Chrysanthemum. There are also four classes open to amateur cultivators of the Chrysanthemum, who are non-members of the corn trade. The foregoing are to be staged on show-boards in the usual manner, and these, together with an open class for six blooms arranged in a vase, complete the list of competitive classes. A silver bowl and a silver cup are also provided, and these are given respectively for the grower of the best twelve blooms in the first four classes, and for the best twelve blooms in the amateur classes. The second object of this excellent institution is to sell the blooms by auction in aid of the funds of the Corn Exchange Benevolent Society, and with such a worthy object in view it is hoped the classes will be well contested. Such good work might with advantage to the charities be taken in hand by many of the more successful Chrysanthemum societies throughout the country, and it may not be too late even now to do something in this way. The honorary secretary of the show under notice is Mr. J. H. Mitchener, 1, Seething Lane, London, E.C., who will be pleased to send schedules to any grower who may be interested.—D. B. C.

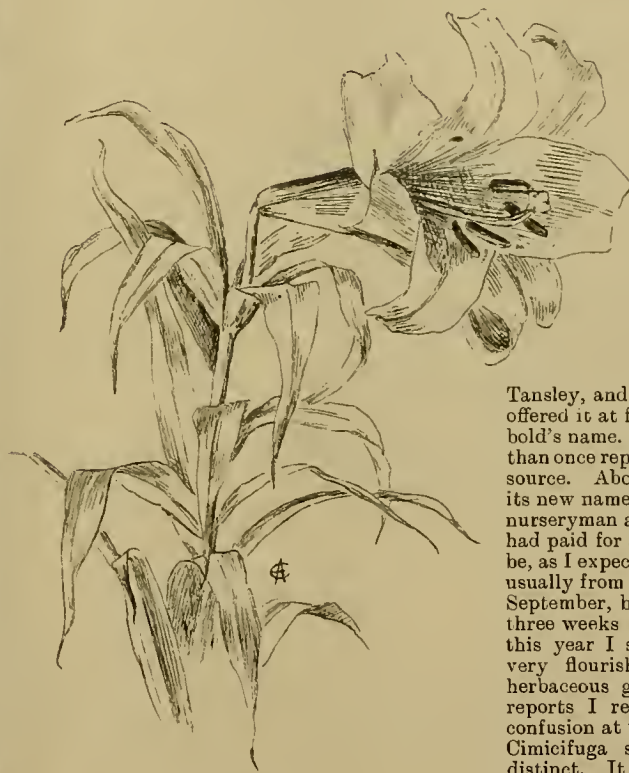
**Vegetables at the Drill Hall.**—It was remarked of the specially fine collection of vegetables shown by Mr. Gibson (Mr. R. A. Hudson's gardener) at the Drill Hall recently from Marlow that it contained some dishes which would have improved the high quality of the collection had they been left at home. That criticism from the purely competitive aspect of vegetable exhibiting may have been quite correct, but it was not sound criticism in this case. Mr. Gibson's aim was to show a thoroughly representative collection of vegetables for the time of year, and in that respect he succeeded. I noticed one dish of the too little known or grown *Stachys tuberifera*, a capital sample of the tubers of this Chinese introduction. When properly cooked it is quite a delicious vegetable, but far from being an attractive exhibition product. There were other useful things shown that were not of the normal show order; but as a representative collection, both in quality and in variety, it was a splendid display, and not least of its merits was the arrangement, which thus created out of the products a work of art. Thoroughly well was the gold medal deserved.—A. D.

**Royal Horticultural Society.**—The next fruit and flower show of the above society will be held on Tuesday next, in the Drill Hall, Buckingham Gate, Westminster, S.W., 1—4 p.m. A lecture on "The Dietetic Values of our Common Vegetables" will begin at three o'clock by the Rev. Professor G. Henslow, M.A., V.M.H. At a general meeting of the above society, held on Tuesday, October 21, thirty new Fellows were elected, amongst them being Lady Owen Roberts, the Hon. Mrs. Wood, Colonel Henry Moore, and Colonel F. B. P. White, making a total of 1,005 elected since the beginning of the present year.

**Prospects of the Chrysanthemum shows.**—Mr. Norman Davis thinks that the backward season will tend to promote quality in the specimen blooms of Chrysanthemums which we are accustomed to see at the November show

at the Royal Aquarium of the National Chrysanthemum Society. If the experience of the last December show of the society can be taken as suggestive of what is likely to be seen next week, then there should be an exhibition of unparalleled extent and quality, especially of varieties of the incurved type. At the last of the three exhibitions to be held during the first week in December much will, of course, depend upon the weather. Fog and mist bring damp and mildew, and the flowers decay rapidly. Should conditions quickly change for the best, and dry, clear open weather follow, even if frosty, it would be much more favourable to the production of fine specimens, especially at the December show. There will certainly be a very good display at the Aquarium on Tuesday, Wednesday, and Thursday next.—R. D.

**Continental Chrysanthemum shows.**—This year will see a very marked progress in the exhibition of the Chrysanthemum on the continent of Europe. Almost everywhere shows are announced, but the principal ones will



LILIUM BROWNII.

undoubtedly be those at Paris on November 12—19, by the National Horticultural Society of France; Angers, November 7—9, by the French National Chrysanthemum Society; Havre, November 8—10; Nîmes, November 1—3; Lille, November 13—17, organised by the North of France Chrysanthemum Society, which has recently been reorganised, and is now under new management; Coutances, November 15—17; Lisieux, November 8—9; Bourges, November 6—11; Milan, November 8—12, organised by the Italian National Chrysanthemum Society; Brescia (Italy), November 5—9; Amsterdam, November 10—14, the annual show of the Netherlands Chrysanthemum Club, besides several others, the dates of which were not fixed at the time of writing.—C. H. P.

**Lilium Brownii.**—The accompanying illustration depicts one of the best garden Lilies, and one that has done well with me this year in a London garden. The flowers are large, trumpet shaped, and of an unusually thick, waxy texture; inside they are ivory-white, but heavily suffused with chocolate on the exterior of the three outer segments, so that the unopened buds are entirely

of a reddish brown hue. The dark brown anthers are very conspicuous against the rest of the flower, although in showery weather the pollen is apt to mar its beauty.—T. W.

**Cimicifuga japonica.**—This plant seems to have been presented as a novelty to the floral committee of the Royal Horticultural Society at the Drill Hall on the 21st ult. But it is no novelty either to botany or to cultivation in England, as I have grown it at Edge for about twenty-five years, and given it away in more or less quantity nearly every year, as it is very easily increased by division. Its history may be instructive as showing how long a good hardy plant may continue in cultivation without becoming generally known. It was described at least as early as the year 1784 in Thunberg's "Flora Japonica," and again, early in last century, in De Candolle's "Prodromus," Vol. I., page 63, both times by the name of *Actæa japonica*. About the year 1843 Siebold put it into a new genus and called it *Pityrospasma acerinum*, but Bentham and Hooker, in "Genera Plantarum" (Vol. I., 1867) joined this genus with *Cimicifuga*, and the plant is accordingly enumerated in "Index Kewensis" and the "Kew Hand List" as *Cimicifuga japonica* (Sprengel). So much for its names; now for its cultivation in English gardens. About twenty-five years ago it was offered in the catalogue of Ware, then at Tottenham Nursery, as a Japanese novelty at a reasonable price under Siebold's name of *Pityrospasma acerinum*, and I at once bought it and found it easy to cultivate if not allowed to suffer from drought or hot sun. A few years later I saw it flourishing plentifully in the Rhododendron Nurseries on the mill-stone grit soil near Matlock, Stephen Smith's at

Tansley, and James Smith's at Darley Dale—who offered it at four shillings a dozen—also under Siebold's name. After dry hot summers I have more than once replenished my neglected stock from that source. About ten years ago it was offered under its new name, *Cimicifuga japonica*, by a Colchester nurseryman at a higher price for one plant than I had paid for a dozen. I bought one and found it to be, as I expected, my old friend. It flowers with me usually from the middle of August to the end of September, but this season all autumn flowers are three weeks late. At the beginning of October this year I saw it flowering in large clumps in a very flourishing condition in a well-stocked herbaceous garden at Penmaenmawr. From the reports I read there seems to have been some confusion at the Drill Hall between this plant and *Cimicifuga simplex* (Wormsk), which is quite distinct. It is described by De Candolle ("Prodromus," Vol. I., page 64) as a variety of *Actæa Cimicifuga*, now *C. fetida*, abundant in Kamtschatka, but the variety has since been made into a species, and is grown and enumerated as such at Kew, where I saw and made a note of it in flower about five years ago, but I have never had it in my garden.—C. WOLLEY DOD, Edge Hall, Malpas.

**Kingston Chrysanthemum Society.**—The annual exhibition of this old society will be held on the 12th and 13th inst., in the warm and pleasant St. James's Hall. The area of this is materially less than is that of the Drill Hall, but it is a far warmer and more comfortable hall. To meet the reduced space the schedule has been partially cut down. Owing to the dense fogs which prevailed last year the society's funds suffered severely, and therefore economy in expenditure as well as other reasons has governed the changes made. Mr. W. Hayward, the art florist of Kingston-on-Thames, is the active secretary, and we hope his efforts will meet with every success.—A. D.

**Cotoneaster rotundifolia.**—The Himalayan *Cotoneasters* are notoriously a difficult class to deal with, as some of the species run into one another by almost imperceptible gradations, so



that the confusion which prevails in many places regarding their nomenclature is easily understood. An interesting group of the different *Cotoneasters* at Kew, most of which being at present fruiting are additionally attractive, is of considerable interest, and a good practical lesson may be learnt as to the successful grouping of the smaller growing kinds. The true *Cotoneaster rotundifolia* is, however, a delightful shrub, whose berries, borne in great profusion, are remarkable for their brilliancy. The usual habit of this species is to form a freely branched spreading shrub of 4 feet high or thereabouts, clothed with small, dark green, roundish leaves, most of which are retained throughout the winter unless the weather is particularly severe. The berries, which are about the size of Peas, are freely borne, and being when ripe of a bright scarlet hue a bush of this *Cotoneaster* is then conspicuous for a considerable distance. Of the smaller *Cotoneasters* it is decidedly the best with but one exception, and that is so dissimilar that a place may in most gardens be found for both. The exception just alluded to is *Cotoneaster horizontalis*, a sturdy bush whose branches are arranged in an almost horizontal manner. The minor branchlets are disposed in a regular manner on opposite sides of the stem, thus imparting to the branches a flattened froed-like appearance. The scarlet berries of this are very showy, while the leaves, which are deciduous but late in falling, become deeply tinged with yellow and red before they drop. When at its best it is entitled to a place among the brightest of shrubs remarkable for autumn leafage. Of the tree *Cotoneasters* the Himalayan *C. frigida* is now laden with its large clusters of scarlet berries. It is sometimes met with in gardens as *C. affinis*, but the true *C. affinis* is a different plant altogether.—H. P.

**Pampas Grass.**—For some years subsequent to its introduction in 1848 this was botanically known and still is generally met with in gardens as *Gynerium argenteum*, but now I believe it is correctly called *Cortaderia argentea*. Differences of opinion may exist as to the necessity for changing the name after it has once become thoroughly fixed, but its great beauty at this season of the year affords no food for controversy, for it is in its way unapproachable. A good healthy tuft, with its long, arching, gracefully disposed leaves, is at all seasons decidedly ornamental, but in early autumn, when overtopped with its silvery plumes, there is then nothing to compare with it. Beside the ordinary form there is a variety with variegated leaves, and another in which the flower panicles are pinkish. This variety, known as *Rendatleri*, is not so beautiful as the type, but from its distinct appearance it is well worth a place in most gardens. In the South of England the Pampas Grass is hardly, but in more northern districts it cannot be thoroughly depended upon unless protected. The New Zealand *Arundo conspicua* (now *Cortaderia conspicua*), though less imposing, is harder than the Pampas Grass, and may therefore be planted in colder localities. Even this is, however, in many places benefited by a certain amount of protection. Both the above named prefer a good deep soil with ample supplies of water during the growing season, but stagnant moisture in winter is injurious.—T.

**White early-flowering Japanese Chrysanthemums.**—Except for the blooms of Mme. C. Desgrange, there was nothing striking in the white early-flowering Japanese sorts, until two or three seasons ago, when varieties of English origin were distributed by a few raisers and specialists. It has taken some time for these good sorts to gain notoriety, and although last season much was done to give them the prominence they deserve, it was not until the present season that their real merits were generally recognised. Mychett White, raised by the late Mr. Russell of Mychett, is a plant of poor constitution, and needs careful culture to get the plants in anything like good condition. The flowers, however, are charming and of the purest white; they also come fairly large without disbudding. The plant is free flowering and about 18 inches to 2 feet high, bloom-

ing the whole of September. From the same raiser I believe came Market White. This is infinitely superior in habit and constitution to the first-named, developing blooms of good quality and of the purest white also. In this instance, however, the period of flowering is rather later than in the case of Mychett White, the latter part of September and early October seeing the plant at its best. There is a newer sort which promises to eclipse the two kinds already described, and this is Doris Peto, another English-raised seedling. This new variety appears to possess all that is wanted in an early-flowering white Chrysanthemum. Its form is quite equal to that seen in the blooms of Mychett White, and the plant has a constitution and habit equal if not superior to that of Market White. The plant is free-flowering and grows about 2½ feet high. On the occasion of the trial of early sorts in Mr. William Sydenham's garden at Tamworth this variety was remarkable for its good quality. Satisfaction is another good ivory white Japanese flower, tinted cream in the centre. This is a plant but little known, but it deserves extended culture. To call it free-flowering does not overstate its value, and its height is about 2 feet. September is the month when its flowers are at their best. A good companion to the last mentioned is a variety named Mrs. Squire. This plant, grown in a pot or in the open border, is a great success. Its pure white blooms are highly valued, habit dwarf and branching, height about 2 feet. Queen of the Earlies, sent out a few years ago with a flourish of trumpets, has scarcely come up to the expectations formed of it. The plants grow into rather tall bushy specimens, and the blooms do not develop in a mass as seen in most of the early sorts. When disbudded, however, a limited number of large handsome blooms may be obtained. Late September and October with me sees the variety at its best. This brief list may well conclude with a variety distributed under the name of Parisiana. In this instance the blooms are large, and develop on a long and stout footstalk. This is an unique instance in which the blooms are large and at the same time full. A dozen flowers set up in a large vase with appropriate foliage would make a pretty decoration. The plant is not very free-flowering, and its height is about 3 feet. During the latter part of September this variety is at its best; it is, I believe, a plant of continental origin.—D. B. CRANE, *Highgate, N.*

## EDITOR'S TABLE.

### NEW APPLE RIVAL.

Messrs. W. Clibran and Sons, the Oldfield Nurseries, Altrincham, Cheshire, send us a fruit of their new Apple named Rival. This was given an award of merit by the Royal Horticultural Society on October 9, 1900; it originated from a cross between Cox's Orange Pippin and Peasgood's Nonsuch. Apple Rival is a large, handsome, and beautifully coloured fruit; the specimen sent to us was unusually richly coloured in a season when hardy fruit is notably colourless. It is considerably larger than Cox's Orange Pippin, and the rich flavour is very similar to that of the most delicious of Apples, while the flesh is very firm. We should say it is an Apple that would keep well. The tree is described as "a free grower, with upright habit, a good cropper, and well adapted to orchard culture." With such characteristics, and an appearance that strongly recommends it, the Apple Rival should soon become a favourite.

### SEEDLING STREPTOCARPUS.

Messrs. James Veitch and Sons, Limited, Chelsea, send us a gathering of blooms of *Streptocarpus* in a great variety of good colours. A considerable improvement has been effected in the flowers of *Streptocarpus* during the past few years, and those sent by Messrs. Veitch are quite representative. There are white, rich purple, carmine, pink, blue, and other coloured flowers, most of which are marked with other shades. The plants from which these blooms were obtained have been grown from

seed sown in January last. They are now in full flower in Messrs. Veitch's Feltham nursery, and promise to continue bright over Christmas. There is little difficulty, we are told, in having *Streptocarpus* in bloom continuously during nine months of the year.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### *Temperate House.*

ACACIA FRAGRANS, *Fatsia japonica*, *Pitcairnia ferruginea*, and Java *Rhododendrons*, of which the following varieties are most conspicuous: *Aphrodite*, *Duchess of Edinburgh*, *Maiden's Blush*, *Mrs. Heal*, *President*, *Princess Beatrice*, *Scarlet Crowe*, *Souv. de J. H. Mangles*, and *Triumphans*.

#### *Palm House.*

*Clavija macrophylla*, *Heritiera macrophylla*, and *Zamia Skinneri* with several cones.

#### *Succulent House.*

*Aloe africana* and *Kalanchoe kewensis*.

#### *Orchid Houses.*

*Angræcum eichlerianum*, *Bulbophyllum recurvum*, *Catasetum fimbriatum*, *C. splendens*, *Cattleya bowringiana*, *C. labiata*, *Cymbidium gaminianum*, *C. longifolium*, *Cypripedium harrisianum*, *C. Io*, *C. Maywardii*, *C. Schlimii*, *C. tonsum*, *C. virens*, *Dendrobium secundum*, *D. Phalaenopsis* and variety *statterianum*, *Epidendrum vesicatum*, *Lælia autumnalis* var. *atr-rubens*, *Listrostachys Monteiræ*, *Masdevallia reichenbachiana*, *M. veitchiana*, *Odontoglossum grande*, *O. madrense*, *O. odoratum*, *Oncidium bracteatum*, *O. excavatum* var. *aerosum*, *Platychnis cobbiana*, *Pleurothallis pulchella*, *Polystachya odorata*, *P. tessellata*, *Scaphosepalum ochthodes*, *S. punctatum*, *Sobralia decora*, and *Vanda cœrulea*.

#### *T Range.*

*Begonia*, various species, and the following tuberous winter-flowering varieties: *Ensign*, *Ideala*, *John Heal*, and *Mrs. Heal*; *Cajanus indicus*, *Hæmanthus multiflorus*, *Hippeastrum aluicum*, *Justicia calycotricha*, *J. quadrifaria*, *Klugia notoniana*, *Lindenbergia grandiflora*, *Oxalis hirtella*, *Pentas carnea*, *Plumbago rosea*, and *Tetranema mexicana*.

#### *Greenhouse.*

Among other things the following are conspicuous: *Acacia platyptera*, *Calceolaria Burbidgei*, *Erica caffra*, *E. mammosa* var. *pallida*, *E. melanthera*, *Eupatorium odoratum*, *Funkia lancifolia* var. *tardiflora*, *Peristrophe speciosa*, *Primula Forbesii*, *P. obconica*, and *P. sinensis*.

## THE ROSE GARDEN.

### ROSES FOR ARCHES.

WHEN well covered with flowers an arch of Roses is one of the most beautiful features of the garden. The selection of suitable varieties requires much care, as nothing is so unsightly as an arch partly covered, and this is far too frequently the case owing to faulty selection. Then, too, the future requirements of such grass-feeding Roses must be provided for. Deep tillage, well-decayed farmyard manure, free drainage, and stimulants during active growth are the main points to remember. Pruning should consist merely of thinning out old or dead wood and shortening back laterals. If the thinning out can be done in September so much the better for the plants. The supports should be preferably of wood, and to give stability an inner arch of iron piping is recommended. For the free-growing Roses named below an arch 8 feet high would be



about right, providing not only a free passage beneath, but also producing an imposing effect. The variety now is so bewildering that it is difficult to make a selection. Since the advent of Crimson Rambler, the multiflora race has been much sought after, and rightly so. They not only make immense growth, but the effect of the flowers for the time being and the persistent way in which they remain on the plants give them much decorative value. Next in importance for this purpose are the Ayrshire and Evergreen Roses. Many individuals desire Roses of better quality, and for arches varieties are often planted that are quite unsuitable. It is true we have a few admirable varieties such as Mme. Alfred Carrière that make as brave a show in autumn as they will in summer, and possibly their number will be increased in the near future, but in the meantime to prevent disappointment the summer blooming ones should predominate. Locality would naturally make a difference as to the selection. For instance, I saw recently in the gardens of Compton Place, Eastbourne, a splendid arch of Claire Jacquier that must have been a beautiful sight when in bloom, but should hesitate to recommend this somewhat tender Rose for cold districts. The following are all good, named in order of merit.

*Crimson Rambler*.—Too well known to need describing. In no better position could this Rose be planted. By proper management the arches may be clothed with flowers from base to summit. It makes all the difference to the size of the trusses whether they are produced from sound young shoots or from old and weak ones. At all times a ravenous feeder, this splendid variety well repays doses of soot water and drainings from cow sheds a week or two before flowering.

*Félicité Perpétue*.—One of the most beautiful clambering Roses grown. Its great profusion and the neat little rosettes so delicately white and so faintly flushed are features one would increase if that were possible. The plant makes a bushy growth that is necessary in an arch Rose, and its lovely foliage is borne well into the New Year. The great advantage of this Rose is that the flowers are produced simultaneously with Crimson Rambler, thereby acting as a good contrast. I would strongly advise that arches be planted on both sides with one variety only, although I know many adopt the plan of having a contrast on the same arch.

*Flora*.—This is another of the *R. sempervirens* race, and is a splendid grower. Its flowers are rather larger than those of any other variety of the tribe; the colour is flesh pink. Judging from its ruby red foliage it looks as though it were a hybrid of the Tea Roses.

*Gloire de Dijon*.—As popular as ever, and one of the sweetest of Roses. Just now it is grand, its buds being more beautiful than in summer. If care be taken in pruning, and one old growth is cut right down each year, there should be no difficulty about the bareness at the base of this Rose. If the growths are taken down and slightly bent this action will induce new shoots from the bends and a well-furnished arch will be obtained.

*Electra*.—Being very free flowering, this Rose seems likely to supplant *Aglaia*, though scarcely so rampant. No one can deny its beauty; the lovely little yellow buds peer out among the white expanded flowers.

*Dorothy Perkins*.—At present rather scarce, but doubtless next year it will be plentiful, for it will root from cuttings most freely. No Rose has "taken on" so much in its first year as this

American novelty, and though a hybrid of *R. wichuriana* the growth is distinctly Rambler-like. The colour is a lovely pink.

*Mme. Alfred Carrière*.—Flowers flesh white, large, and sweet scented. A valuable white Rose, blooming well, late, and growing most vigorously.

*Rêve d'Or*.—This fine old Rose is gaining in favour and is not so tender as is commonly supposed. An eminent gardener told the writer recently that he found this a most reliable yellow, and it was also most valuable for its foliage, which is abundantly produced.

*Euphrosyne* (the Pink Rambler).—As time is necessary for such Roses as this to establish themselves one is apt to discountenance this class of Rose on that account. *Euphrosyne* is, however, very beautiful; the fine pyramidal trusses of tender pink flowers and the wealth of golden stamens are special features in this Rose.

*Carmine Pillar*.—Gorgeous in colour, beautiful in its pale green foliage, this charming Rose should be planted wherever there is room. The flowers are certainly very fleeting, but they make amends for this by their prodigious numbers.

*Queen Alexandra*.—This Rose, although a recent novelty, has gained many admirers. The colour is just the shade of pink that appeals to the eye, and shows what may be accomplished by hybridising.

*Reine Marie Henriette*.—I did not see how I could well leave out of a selection of native varieties a Rose which is such an old friend as this. If it be allowed to grow as it likes and not pruned, a splendid bunch results, not only in summer, but in autumn also. I am not sure that this variety will not be superseded by its daughter *Noella Nabonnand*, but it is yet rather early to give a definite opinion.

PHILOMEL.

#### AUTUMN ROSES AT SLOUGH.

Of late years the Rose has come to rank almost as the queen of autumn flowers as well as of those of summer. By the introduction of new, and the improvement of existing varieties of Teas, Hybrid Teas and others, it has been made possible for the Rose garden to be almost as bright with flowers during the autumn as in the summer months. Of this we were convinced when recently spending a short time in the Slough and Langley Nurseries of Mr. C. Turner. There are fields of Roses



ROSE FELICITE PERPETUE OVER GARDEN ARCH.

in astonishing variety, and in late September and early October they were a beautiful sight. Even some of the Hybrid Perpetuals quite proved their claim to be regarded as autumnal flowerers. A good number were bearing a second display of really excellent blooms; for instance, Mrs. J. Laing, Camille Bernardin, a good pale crimson; Charles Lefebvre, bright crimson; Ulrich Brunner, Comtesse de Ludre, Merveille de Lyon, Mme. Victor Verdier, bright cherry red; Marie Baumann, La France, Mme. Gabriel Luizet, a beautiful pink flower of good shape; Maurice Bernardin, rich crimson; Jules Margottin, Gustave Piganeau, and others. But the value of the Rose as an autumn flower is almost entirely due to the qualities of the Teas, Hybrid Teas, Noisettes, Chinas, &c., that add so much to the beauty of the garden when most other flowers are fading. The extensive plots in Mr. Turner's nursery which are devoted to the culture of such types of Roses as those mentioned above, a few weeks ago were rendered most attractive by hundreds of lovely flowers in such inimitable shades of colour as only those Roses can show, and one could in looking at them almost imagine it to be summer again.

But few made a braver show than the well-known Augustine Guinoisseau, which, represented by both standards and dwarfs, carried a profusion of its exquisitely tinted flowers, a good deal paler in colour than La France, from which variety it is a sport. The charming characteristic of this Rose, and one that makes



it easily recognisable even from a distance, is the variety of form, colour, and, above all, the arrangement of its petals. Their chief beauty lies in the way they are disposed. *Beauté Inconstante* is another that should be held in high esteem by lovers of autumn Roses; its large coppery red blossoms alone made quite a picture. *Belle Lyonnaise*, too, was freely blooming, its large pale yellow flowers showing to great advantage. Everyone knows *Catherine Mermet*, and with most it is a favourite, so that *Bridesmaid*, another lovely pink Rose which somewhat resembles it, should also become popular, especially as it is apparently a better autumnal bloomer. We noticed that rich yellow *Tea Rose Billiard et Barré*, whose flowers are so lovely in the bud; *Viscountess Folkestone*, wonderfully free; *The Bride*, not perhaps so vigorous a grower as some, but bearing a beautiful flower—a creamy white sport from *Catherine Mermet*; *Souvenir de S. A. Prince*, *S. d'un Ami*, *S. de la Malmaison*, and *S. de Catherine Guillot*, the flowers of the latter being a copper colour, tinged and shaded with carmine, and the centre yellow.

*Princesse de Sagan*, *Grüss an Teplitz* (a remarkably strong grower and very profuse bloomer), and *Marquise de Salisbury* were strikingly good amongst the dark-coloured Teas and Hybrid Teas, while the charming blooms of *Mildred Grant*, *Mrs. Edward Mawley*, *Maman Cochet*, and *Killarney* were also prominent. *Marie van Houtte* has been particularly good this autumn, flowering most freely a second time, and its blooms have been most exquisitely tinted. *Ma Capucine* is a Tea Rose that must not be omitted, for it was equal to almost any we saw in the Slough nurseries. Although the blooms are not large, they are a wonderful combination of bronzy yellow. *Mme. Falcot*, bright buff yellow; *Mme. Chedane Guinoisseau*, bright canary yellow; *Mme. Cusin*, rosy purple, the petals being marked at the base with pale yellow; and *Mme. de Watteville*, salmon, white, and pink, were others we thought worthy of special remark. It is impossible to describe the never-ending variety of form and colour that a field of Tea Roses in bloom presents to the onlooker; it is a picture that to be appreciated requires to be painted in colours, not in words, and when one realises that the time of year is early October, one's wonder and appreciation increase. The *Phloxes*, *Gladioli*, and *Michaelmas Daisies* must look to their laurels, or they will before long have to give place to the Rose as the most popular of autumn flowers.

### SELECTIONS OF ROSES.

WE have received so many letters asking for selections of a few good Roses for present planting that we give the following. The lists will be continued till finished. We ask our readers also to refer to some lists recently published. Quite new Roses will be dealt with separately.

#### TWENTY-FOUR BEST TEA ROSES.

This list consists mainly but not entirely of Tea Roses suitable for exhibition, but we only name such varieties as are easily grown and likely to give general satisfaction in the garden. Varieties of this group that are of climbing habit will appear in a separate selection.

*Alliance Franco-Russe*, yellow; *Anna Olivier*, buff; *Boadicea*, peach; *Bridesmaid*, pink; *Hon. Edith Gifford*, creamy white; *Innocente Pirola*, white; *Mme. Antoine Mari*, rose and white; *Mme. de Watteville*, lemon and pink; *Mme. Hoste*, lemon yellow; *Mme. Lambard*, salmon; *Mme. Vermorel*, coppery yellow; *Maman Cochet*, flesh; *Marie van Houtte*, cream; *Medea*, lemon; *Mrs. Edward Mawley*, carmine; *Niphotos*, white; *Rubens*, creamy white; *Souvenir de S. A. Prince*,

white; *Souvenir de Catherine Guillot*, orange; *Souvenir de Wm. Robinson*, fawn, pink, and yellow; *Souvenir d'un Ami*, pink; *Sylph*, white shaded violet; *The Bride*, lemon white; and *White Maman Cochet*.

#### TWELVE BEST CHINA OR MONTHLY ROSES.

*Aurore*, orange; *Common Pink*, pink; *Cora*, yellow and carmine; *Cramoisie Supérieure*, crimson; *Ducher*, white; *Fabvier*, scarlet; *Fellenberg*, rosy red; *Irene Watts*, delicate pink and white; *Mme. Laurette Messimy*, satin rose; *Mme. E. Resal*, rose and yellow; *Mrs. Bosanquet*, flesh; and *Queen Mab*, apricot.

#### THIRTY-SIX BEST DECORATIVE ROSES FOR SUMMER AND AUTUMN.

This list consists of the best kinds for producing a mass of effective and continuous bloom. The difficulty is to select thirty-six out of so many available, but we have endeavoured to name kinds that have superseded certain old varieties, for instance, *Grüss an Teplitz* instead of *Fellenberg*. Arranged alphabetically they are as follows:—

*Armosa*, rose-pink; *Augustine Guinoisseau*, white tinted rose; *Beryl*, orange; *Camoens*, rose; *Caroline Testout*, fresh pink; *Corallina*, rosy crimson; *Cramoisie Supérieure*, blood red; *Enchantress*, cream; *Eugenie Lamesch*, yellow; *General Schablikine*, red; *Gloire des Polyanthas*, rose; *G. Nabonnand*, pale flesh; *Grüss an Teplitz*, scarlet; *Hon. Edith Gifford*, white; *Kaiserin Augusta Victoria*, white; *Killarney*, flesh pink; *Lady Battersea*, cherry red; *La France*, pink; *Laurette Messimy*, rose and yellow; *Liberty*, crimson; *Mme. Abel Chatenay*, salmon; *Mme. Antoine Mari*, white and rose; *Mme. Charles*, apricot; *Mme. Chedane Guinoisseau*, yellow; *Mme. Pernet Ducher*, creamy white; *Marie d'Orleans*, deep rose; *Marie van Houtte*, cream; *Marquise de Salisbury*, scarlet; *Perle d'Or*, orange; *Princesse de Sagan*, blood red; *Queen Mab*, apricot; *Souvenir de Catherine Guillot*, orange red; *Souvenir de Catherine*, flesh; *Sulphurea*, pale yellow; *Viscountess Folkestone*, creamy pink; and *White Lady*, creamy white.

#### TWELVE STRONG-GROWING BEDDING ROSES.

Roses are sometimes desired to grow tall and yet not too straggling. In course of time many of the recognised bedding kinds can be obtained a good height by sparse pruning. A few varieties may be selected which produce the desired height more quickly; they are mostly semi-climbers. A dozen good kinds are:—

*Wm. Allen Richardson*, *Longworth Rambler*, *Alistar Stella Gray*, *Grüss an Teplitz*, *Gustave Regis*, *Belle Lyonnaise*, *Germaine Trochon*, *Waltham Climber No. 1*, *Sombreuil*, *Billiard et Barré*, *Cheshunt Hybrid*, and *Bardou Job*.

(To be continued.)

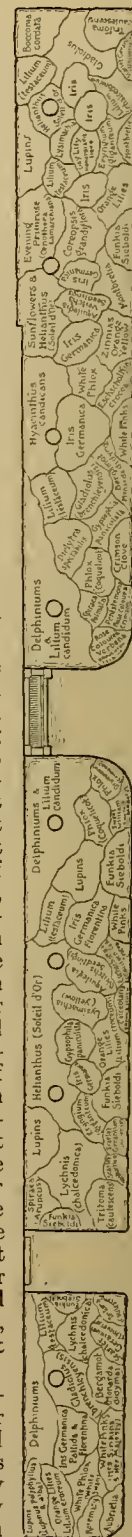
## THE FLOWER GARDEN.

### WINTER SCHEMES FOR SUMMER COLOURING.

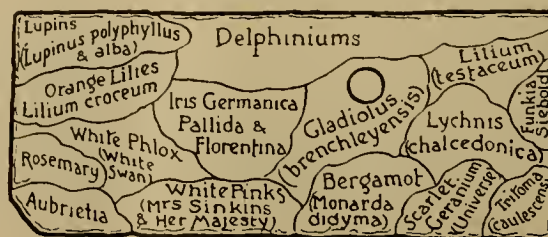
LAST week I ventured to draw attention to the great importance of endeavouring, when planting a border, to secure a harmonious effect of colour. The method which I have found most useful (after the dimensions of the border have been decided) is to set it out, as in the accompanying illustration, by means of a plan—a coloured one for choice. This enables me during the summer months to correct defects which are often difficult to bear in mind until the planting days come round once more. Perfection cannot be attained in a single season; climate

and soil, with their effect on certain plants in certain positions, must be studied, and personally I would far rather see the humblest flower thriving in my border than endeavour to acclimatise those, however beautiful or rare in themselves, which do not present a healthy appearance, and are evidently unsuited to the prevailing conditions; herein lies the explanation of what may possibly seem to be a very common-place list of hardy flowers. At first my ambition knew no bounds! Turning a deaf ear to the gardener's warnings, I planned innumerable effects with impossible plants; however, it is precisely in this way that experience is gained. The damp mists rising from the moat which shroud Broughton during many autumn and winter days do more damage to the garden, if possible, than the late spring frost, although 7° and 8°, during the early days of May, is not an infrequent occurrence. Water no doubt attracts frost, and what true garden-lover has not experienced a thrill of intense sadness to find, on a bright sunny morning, those tender green shoots, which only the evening before held such promise for the summer days, all shrivelled and black? Hence the omission from my plan of numerous plants which might be grown with perfect success elsewhere. It will be necessary, before working out a colour scheme, to determine during which months the greatest brilliancy of effect is required. The border here illustrated is planted for the months of May, June, July, and the first half of August.

As regards the arrangement of colours in their relation to one another, I always consider scarlet as the "high light" in my picture, and it is certainly the most difficult to fix in its proper position, for neither crimson, rose colour, mauve, nor even



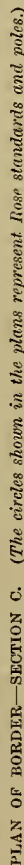
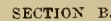
PLAN OF A MIXED BORDER AT BROUGHTON CASTLE. (Shown in detail in following plans.)



SECTION A.



THIS is a free-flowering Oriental species of pleasing habit, and well adapted for the border. It reaches a maximum height of 6 feet, but is more frequently 4 feet or 5 feet. The growths are neat and thickly set with flower spikes every few inches of their length. Each spike has a dozen flowers, which are slightly smaller than those of *L. latifolius*, and of a deep rose in colour, with a shade of copper showing on the face of the standards, the reverse being tinted bronze. Like most *Lathyrus*, the plant requires a year or two to establish itself.





before its true worth can be seen. The habit, a loose one, can be rendered compact, yet free, by inserting a few Pea sticks about the plants over which they can ramble at will. The slender sprays of roundish Pea-like foliage and pretty flowers closely packed on the stem may be cut freely without injury to the plant, as each lead removed will induce numerous breaks from the old stems below, thus considerably extending its season of flowering. The plant does not appear so well adapted for clothing walls, trellis, &c., as *L. latifolius*, for the growths do not attain the same height and vigour; but for the border, with a few sticks for support, it looks quite at home. It may be raised from seeds, but the seedlings are slow in growth.

#### PHYSOSTEGIA (DRACOCEPHALUM) VIRGINIANA ALBA.

THIS, the rare white form of the well-known North American *Physostegia*, gives promise of becoming quite as strong and as free as the type, though one rarely sees an old-established specimen. It grows 2 feet high, and bears branched four-ranked spikes of white tubular flowers (which are somewhat inflated above the middle) averaging an inch in length and closely arranged together. A rich free soil of good depth, such as one would choose for *Phloxes* of the decussata section, suits the plants well, but in heavy retentive soils the roots decay in winter, and the plants are a long time re-establishing themselves in spring. On the other hand, it is one of the first to suffer from drought in a poor light soil, the whole plant drooping badly after a few weeks' warm sunshine, hence the need of a deep root run of good tilth, and perhaps a mulch of old manure should the weather be very dry. G. B. MALLETT.

#### ASTER AMELLUS PERRY'S FAVOURITE.

THOSE who can look back for a few years cannot but be struck by the improvements effected in the Starwort, and it is gratifying to those who have long recognised the value of this flower in the garden to see the measure of popularity it has attained. That there is still room for improvement must be admitted, and one especially looks forward to the acquisition of new forms of the fine *Aster Amellus*, though there are now a few really good varieties in cultivation. For some years I have waited for a rose or pink variety, and I thus made a point of securing that called *Perry's Favourite* this spring. It is now in bloom, and one is glad to recognise in it one of great merit in point of colour. It is a good rose or pink, and makes a charming variety, either in the garden or for cutting. Of course *Asters* of the *Amellus* section do not produce the pyramidal plants of some of the others, but the size and beauty of the individual blooms, as well as the neat habit of the plants, make them among the most desirable of all *Michaelmas Daisies*. Such a variety as *Perry's Favourite* is sure to add to the popularity of this class. S. ARNOTT.

#### ARENARIA BALEARICA.

THIS little Sandwort is one of the prettiest and most interesting of all our little rock plants. I have often known people to look through the rock garden and take but little interest in the plants generally, but when they have suddenly discovered this little cushion-like plant covered with its countless little starry flowers on slender stalks a little more than an inch long growing perhaps upon a rough piece of sandstone rock, or, as I have often seen it, luxuriating on the grass path in front of the rockwork, an interest has been awakened and a love for the plant established never to be forgotten. In looking round the beautiful grounds of Lord Battersea, at Overstrand, near Cromer, a short time since we came across several very fine dense masses of this little plant. Here, close to the sea and only protected by shrubs and tall herbaceous plants, this plant is quite at home, the culture of which reflects great credit on the gardener, Mr. Clements. Now is the best time to

plant. If done at once it will soon establish itself and flower freely the following spring and summer. To establish it I have found it best to plant firmly in any good light soil near the rocks or stones we wish to cover; it will soon approach and begin to clothe them. It is readily increased by division, and when once established will seed freely. It will grow on most soils, but I have always found it do best on sand or gravel. On cold soil it will sometimes perish in winter. Its true home is on the rockwork; it will well repay any trouble that may be taken to establish it.

T. B. FIELD.

### THE ROCK GARDEN.

#### THE ROCK GARDEN IN OCTOBER.

FLOWERS are becoming scarcer every week, especially among the smaller rock plants. Among the taller plants, such as would scarcely adorn the rocks themselves, but would be either forming the background or be interspersed between the rocks, there is still quite a galaxy of brilliant colours, the brightest of them being, perhaps, the scarlet *Lobelias*. But even among rock plants proper many bright colours still prevail, and since there is nothing like a practical example, I think I cannot do better than give a list of plants which I have actually seen in flower during this October in a rock garden which is scarcely two years old, namely, the Rectory Garden at Camborne, Cornwall, which, though very much exposed, shows, nevertheless, still a wealth of colour in spite of the adverse season. Here is the list of plants in bloom as noted down on the spot:—

<i>Asteriscus maritimus.</i>	<i>Cyclamen hederacifolium.</i>
<i>Potentilla alchemilloides.</i>	<i>Anemone sylvestris.</i>
<i>Sidalcea candida.</i>	<i>Hypericum moserianum</i>
<i>Fuchsia procumbens.</i>	<i>variegatum.</i>
<i>Campanula isophylla alba.</i>	<i>Sempervivum Lagerri.</i>
<i>Phygellus capensis.</i>	<i>Scutellaria rupestris.</i>
<i>Veronica spicata.</i>	<i>Oxalis valdiviana.</i>
<i>Chrysogonum virginianum.</i>	" <i>floribunda.</i>
<i>Dianthus Panceii.</i>	<i>Arenaria grandiflora.</i>
<i>Maurandia barclayana.</i>	<i>Calandrinia umbellata.</i>
<i>Erickellia grandiflora.</i>	<i>Polygonum Brunonis.</i>
<i>Aster canescens.</i>	" <i>vacciniifolium.</i>
<i>Spigelia marilandica.</i>	<i>Claytonia sibirica alba.</i>
<i>Seseli cespitosum.</i>	<i>Polygonum chamaebuxum</i>
<i>Campanula pumila alba.</i>	<i>purpureum.</i>
<i>Erigeron aurantiacus.</i>	<i>Asclepias tuberosa.</i>
<i>Coronilla Emerus.</i>	<i>Tunica Saxifraga.</i>
<i>Reseda glauca.</i>	<i>Nierembergia filicaulis.</i>
<i>(Enothera missouriensis.</i>	<i>Achillea tomentosa.</i>
<i>Statice profusa.</i>	<i>Antirrhinum glutinosum.</i>
<i>Sedum Telephium.</i>	" <i>Moly.</i>
<i>Galega officinalis alba.</i>	<i>Corydalis lutea.</i>
<i>Liatrix scariosa.</i>	" <i>alba.</i>
<i>Campanula van Houttei.</i>	<i>Ethionema cordifolium.</i>
<i>(Enothera taraxacifolia.</i>	<i>Vittadenia triloba.</i>
<i>Callirhoe involucrata.</i>	<i>Linaria pallida.</i>
<i>Androsace oculata.</i>	<i>Silene Armeria.</i>
<i>Convolvulus Caeorum.</i>	

Even this list of over fifty plants is not quite complete. There are several among those enumerated which are blooming the second time or which were mentioned as being in bloom last month. But that does not alter the fact that they are blooming now in October. Many of the plants named above have not been previously mentioned, and among these I may describe the following:—

*Nierembergia filicaulis* is a half-hardy perennial, hardy in Cornwall but not hardy in the northern counties. It is very unlike the better known *Nierembergia rivularis*, which, as the name would imply, loves a moist spot and grows only 2 inches or so in height. *N. filicaulis* reminds one more of a *Linum* growing about 15 inches to 18 inches high, and bearing bluish white flowers  $1\frac{1}{2}$  inches across tinged with lilac. It is a very striking plant and flowers abundantly in October. Its leaves are very small and are borne on slender stems.

*Oxalis floribunda* is quite hardy in the Cornish garden referred to, but must be considered a greenhouse plant in the North. Its flowers are bright pink and abundantly produced.

*Oxalis valdiviana* is of the same degree of hardiness, and resembles the former generally,

though growing somewhat more robustly, but the colour of the flowers is a bright golden yellow. It does well in a comparatively dry position.

*Scutellaria rupestris* is not so well known as *S. alpina*, which was mentioned last month. It has purple and white flowers, while those of *S. rupestris* are blue. The plant grows about 8 inches or 9 inches high. It is a pretty rock plant of the bolder type.

*Hypericum moserianum variegatum* is a pretty rock shrub preferring a half shady position, where its variegated leaves and bright yellow flowers show to great advantage.

*Convolvulus Caeorum* is very erratic in its time of flowering; I have known it in bloom at Christmas. At Camborne it is in flower now, and a very attractive plant it is with its silvery leaves and large pale pink flowers.

*Enothera taraxacifolia* is a fine plant of the bolder type; its strong prostrate shoots covered with large white flowers at this time of the year make it desirable for a position where its strong growth does not impede the smaller alpine. *(Enothera missouriensis* is also a strong-growing, trailing plant, but it has deep yellow flowers.

*Campanula van Houttei* and its paler form *C. v. H. pallida* are still very bright—the one with deep blue and the other with pale blue flowers. It seldom grows more than 12 inches or 15 inches in height, and its bell-shaped, somewhat elongated flowers are several inches long.

*Statice profusa* is well named; it bloomed in March, and has been blooming more or less profusely ever since. Unfortunately, it is not hardy except in the warmest and most sheltered spots, and must generally be considered a greenhouse plant.

*Reseda glauca* has cream-coloured flowers resembling the hardy British plant *Reseda luteola*, but the foliage is of a beautiful glaucous green. It grows about 9 inches to 12 inches in height.

*Shortia galacifolia* is not now in bloom, but its handsome leaves have turned a scarlet-crimson, and they are almost more ornamental than the pale pink flowers which appeared in early spring.

*Seseli cespitosum* is a peculiar rock plant with glaucous lacinated leaves, and just now bearing numerous umbels of white flowers.

*Erickellia grandiflora* has peculiar tassel-shaped flowers of a pale yellow or straw colour. It grows about 18 inches high.

*Phygellus capensis* is a taller and more robust plant, about 2 feet in height, and produces its deep red tubular flowers at this time of the year in abundance.

*Fuchsia procumbens*, with its purplish blue flowers and neat, creeping habit, is hardy in most of the southern and western counties. It is a neat trailer, now blooming, and bearing later on seeds of the size, shape, and colour of a small Plum. A half-shady place seems to suit it best.

*Antirrhinum glutinosum*, the large-flowering white Snapdragon, prefers a sunny spot. Its somewhat prostrate habit and woolly foliage add to its attractiveness.

#### CLIMBERS

Of climbing plants now blooming the most beautiful are the various kinds of *Clematis*, of which an enormous number are still in bloom. In the west of Cornwall, however, where a milder climate prevails, many choice climbers are now in full bloom, which might well be used for covering bold natural rocks or artificial rock walls of considerable height, but in a very sheltered and warm situation only. The following are now blooming near Penzance in the gardens at Trewidden:—

*Lophospermum scandens*, a half-hardy perennial, which makes an excellent climber and bears Gloxinia-shaped large flowers of a pleasing pink colour.

*Manettia bicolor* is really a greenhouse climber, but does well out of doors in several parts of Devon and Cornwall. The leaves are small, but the flowers are showy, being scarlet and yellow in colour and tubular in shape.

*Pentstemon cordifolius* is quite hardy, not only in the south, but also in the Midlands; it is very unlike any other *Pentstemon*, being of a shrubby



nature and growing 8 feet or more in height. For covering large rocks it is excellent, and its scarlet flowers, about 1 inch to 1½ inches in length, are still very bright.

*Maurandia barclayana* is another half-hardy perennial now flowering in the West. Its flowers are violet in colour and bell-shaped.

*Hidalgoa Wercklei* (the climbing Dahlia), with its bright scarlet flowers, I also noticed in bloom at Trewidden, but whether it will stand the winter is doubtful.

MEDIUM AND TALL HERBACEOUS PLANTS FOR BACKGROUND.

Asters, and Anemones of the *Anemone japonica*



RUDBECKIA LACINIATA FL.-PL. IN THE GARDEN OF MR. HORACE WADDINGTON, GODALMING.

type are now represented at their best, but the varieties in either genus are so numerous that a mere enumeration of them would fill more space than would be available for this essay.

Of *Salvias* the variety *Blue Beard* is very showy just now, its purple bracts being uncommonly bright, forming a good companion by way of contrast to the taller *Actinomeris virginica*, a hardy perennial not often seen except in the western counties. The plant grows 3 feet to 4 feet high, and its bright yellow composite flowers are exceptionally neat. *Belladonna* Lilies, too, are now in full bloom, and their large pink flowers are most attractive. The same

might be said of the handsome *Senecio pulcher*, which is still bright and showy.

Elmside, Ereter. F. W. MEYER.

SUMMER SHOWERS.

THEIR EFFECT ON GARDEN FLOWERS.

THOUGH the wise man knows there is nothing new under the sun, yet however true the abstract proposition, we often note something or another as quite novel in our own personal experience. For myself, I cannot remember in twenty-five years of gardening a season so remarkable as this summer and autumn have been for exceptional growth in the vegetable world.

I attribute it to the continuous attentions of the clerk of the weather from mid-July to end of August, when out of forty-six days we had rain on twenty-five, and when the aggregate fall here was 4.14 inches, while on August 16 and 18 we had .83 inches and .81 inches respectively.

This growth was shown in our kitchen gardens by the extraordinary crops of Peas, French and Runner Beans, Cabbages, Broccoli, and Cauli-flowers, the latter (fine ones) selling in our local shops at a penny each. In June we picked many Strawberries that ran eighteen or twenty to the pound, and one berry which weighed 1½ oz. Last month we gathered a basket of Apples, the "poor man's friend" kind, of which a large number averaged 10oz. to 12oz. each; six of them scaled 4lb. 9oz. in all, and a single specimen weighed 14oz.

But it is the growth in my herbaceous borders which strikes me as still more abnormal, and in illustration of which I send for your acceptance some memoranda of heights attained and a couple of photographs. These latter represent *Verbascum olympicum* and the double *Rudbeckia* (*R. laciniata flore-pleno*); they were taken in my garden here on June 10 and September 8 respectively. The Mullein was a grand specimen, over 6 feet high, and one compact sheet of yellow bloom; the *Rudbeckia* was 8 feet 1 inch, and a very beautiful object.

I have a perennial *Lupin* 6 feet 10 inches in diameter, which had about 150 bloom spikes upon it. This *Lupin* is an interesting specimen, which sprang naturally in my garden some four years ago, being, as I believe, an accidental hybrid between the pretty dwarf *L. nootkatensis* and the common blue *L. perennis*.

I subjoin a list of measurements just taken, and accurate, of the heights of various plants in my borders. It may interest some of your readers to

compare it with the average heights of the same species of plants:—

	Height.	
	Fest.	Inches.
<i>Philadelphus grandiflorus</i> ..	14	7
<i>Helianthus tuberosus</i> (Artichoke) ..	13	—
<i>H. orgyalis</i> ..	9	4
<i>H. Miss Mcllish</i> ..	7	7
<i>H. decapetalus</i> (lemon coloured) ..	7	—
<i>Harpalum rigidum grandiflorum</i> ..	8	3
<i>Physostegia imbricata</i> ..	8	—
<i>Solidago altissima</i> ..	7	4
<i>Dahlia Empress of India</i> ..	8	2
<i>Boltonia latiquama</i> ..	8	2
<i>Aster Nove-Anglie</i> ..	6	8
Ditto (pink form) ..	6	4
<i>Aster</i> (species) ..	6	6
<i>Silphium perfoliatum</i> ..	7	7

I may remark that these plants have not been forced in any way by heavy manuring or special culture of any sort—the soil is a sandy loam.

I am sorry to add that the lack of strong sunshine in August has, I fear, prevented due ripening of the luxuriant growth in many of our shrubs, which will probably suffer in proportion should a severe winter supervene.

HORACE WADDINGTON.

Roseneath, Godalming.

BRITISH HOMES AND GARDENS.

MENTMORE.

SOME of the loveliest gardens in England are to be found under the shadow of the Chiltern Hills. The beauty of the scenery seems to have acted as an incentive to the owners of the many beautiful seats in Buckinghamshire, and the most has been made of good soil and good position, backed up by ample means and a genuine love of gardening. One of the most delightful of all these gardens is that of Mentmore, which is now owned by Lord Rosebery, and was formerly the property of his father-in-law, the late Baron Myers de Rothschild. Of this fine estate of something like 10,000 acres, the main portion is, of course, given over to ordinary farming, but near the residence Lord Rosebery has about 100 acres under fruit, and a walk through the orchard with the capable head gardener, Mr. Smith, is a pleasure which it is worth while going a long way to enjoy. A large tract of land is devoted to Plums grown for market, Victoria, Coe's Golden Drop, and Pruces being among the most profitable sorts, though others are grown to keep up a succession of fruit. Apples are an important feature, each variety planted in a row to itself, and it is worth noting how few are the varieties in comparison with the total number of trees grown. Mr. Smith is strongly of opinion that it is a mistake to grow too many kinds, and for the most part confines himself to well known Apples. Blenheim is prominent, and so are Wellington, Cox's Orange Pippin, Lane's Prince Albert, Ecklinville, and Fearn's. Always a good Apple is the verdict about Ecklinville, and it is a pleasure to see the fine clean growths, without the slightest trace of insects or disease. Bramley's, on the other hand, grows too rank and does not fruit well, and the Ribston is almost invariably found to canker at a certain stage of its growth. It seems a pity this fine Apple cannot be freed from this trouble, but as the complaint comes from all localities after trials on all manner of soils, one is reluctantly forced to the conclusion that it is due to inherent weakness or to some peculiarity that it is vain to strive against. Mr. Smith is much impressed by Newton Wonder, which he considers likely to be a general favourite when its merits become known. His method of dealing with the trees is to cut out a limb every year instead of removing the top branches, as he holds that it is easier in this way to preserve the tree's balance and to allow the admission of light and air into the centre. Certainly, judged by results, the plan answers admirably, for an ill-shaped tree is here quite the exception.

Of Pears grown in the open the most striking in appearance is Fertility, its handsome shape being almost as noticeable as the enormous number of fruit-buds in evidence at the time of our visit in the spring. A high word of praise was given to Catillac, absolutely the best stewing Pear in existence. The Autumn Bergamotte is a favourite; the curious fact may be mentioned that some specimens of this Pear in the most perfect condition were found at Christmas time in the long grass beneath the trees. Such a method of storing will not commend itself to growers, but it may afford a useful hint, nevertheless. Most of the Apples, if not all, are on the English Paradise,



and some cordons of Gipsy King, growing around the borders a couple of feet or so from the ground, are on the same stock, and yield an excellent crop of good fruit. The shoots were covered with buds, giving every promise of a fruitful yield. Seventy-two tons of mixed fruit were sent off in one year, and this is not by any means a record, though the returns from the largest yield were not so satisfactory, so true is it that something more than a large crop is needed to make a profitable season. The Pears are grown on the Quince. On the walls Peaches are grown and ripen well, so that a good succession is maintained, the trees in one of the houses already bearing small fruits, while in another there was an ample display of bloom. The same need of keeping up successional supplies is evidenced by the care bestowed upon the Vines—which were in all stages of growth—and Strawberries, some of which were beginning to colour, while out of doors there were very large beds devoted to this crop. A question which has often been discussed is the length of time a Strawberry bed should endure. Many good gardeners have come down from three years to two, and Mr. Smith

other climbers are hanging to provide graceful beauty in their season; whole beds among the conifers are filled with different kinds of Spiræas; Roses are grown in great profusion, while one of the latest additions has been a preparation for a pergola or covered way. This covers a large space of ground. Many hundreds of climbing plants have already begun to make their way along the wires, and a photograph of this a few years hence would be worth reproducing. Coniferous trees are very numerous, and there are several magnificent specimens of Cupressus lawsoniana, one nearly 70 feet high. This is one of the districts where Wellingtonia gigantea bids fair to justify its name. Some specimens raised from seed sown by Mr. Smith on March 20, 1878, and planted out in 1880, are now nearly 50 feet high. These seeds, by the way, were shot down from a tree in California by the late Sir Richard Quain, the well-known surgeon.

If it were permissible to deduce the character of the owner from an inspection of the garden, one would have to describe Lord Rosebery pretty much as the public knows him. It shows the

gardens, and that the loss caused by their removal will not be compensated for by the extra light and air given to things growing around them.

A few words in conclusion. The gardener's residence is a beautiful old manor house covered with climbers, and a bothy erected for the accommodation of twelve gardeners is a building of handsome design. There are altogether thirty-eight gardeners and labourers employed, and the grounds are kept in admirable condition. The mansion itself is somewhat modern, and the arrangement of the grounds in the immediate vicinity was the work of Sir Joseph Paxton.

## AUTUMN FLOWERS.

EARLY September sees our gardens at their fullest and brightest. The large bold plants have completed their growth, and the latest of the half-hardy annuals are in their prime; Dahlias, Nasturtiums, and African Marigolds provide brilliant colours; Clematis flammula flings its cloudy mantle over bush and tree, and fills the air with wandering sweetness.

The illustration is a picture of a corner of a garden in Hampshire; it is instructive in that it shows the pictorial effect of simple plants well used, and encouraging in that there is nothing in it that might not be done in any garden—even quite a humble one.

## MOUNTAIN PRIMULAS.

PRIMULAS FOR OPEN GROUND OR GARDEN USE.

(Continued from page 217.)

*P. FLAGELLICAULIS* (Kern.) is a hybrid of *P. acaulis* and *P. officinalis*.

*P. inflata* (Reich.), syn. *P. panonica* (Kern.).—A variety of *P. officinalis*. Calyx rounded, inflated; leaves abruptly contracted to the petiole, undersides greyish.

*P. intermedia* (Facch.), Southern Tyrol, syn. *variabilis* (Goup.), *brevistyla* (DC.) Figured in Reichenbach's "Icones XVII," t. 62.—A hybrid of *acaulis* and *officinalis*.

*P. intricata* (Gren. et Godr.).—See *P. elatior* var. *intricata*.

*P. macrocalyx* (Bunge), syn. *P. walensis* (Fisch.).—A variety of *P. officinalis* with spreading, widely campanulate calyx. A garden form

of *P. acaulis* with an enlarged and monstrous foliaceous calyx is often sold under this name.

*P. media* (Pet.) syn. *P. unicolor* (Nolte), *decipiens* (Loud.), *leudrensis* (Porta).—A hybrid of *P. officinalis* and *elatior*.

*P. officinalis* (Jacq.).—Distributed throughout Central and Northern Europe. Figured in Reich. "Icon. XVII," t. 49; syn. *P. odorata* (Gil.), *ambigua* (Salisb.). A well-known plant; with *P. elatior* the origin of the coloured Primroses of gardens. It was brought into English gardens towards the end of the sixteenth century, and has been considerably altered and improved under the name of Cowslip. The leaves are wide and abruptly contracted to the petiole, covered with a light greyish pubescence, strongly ribbed and reticulated; flowers small, drooping; in *elatior* they are upright, bright yellow with five orange spots at the base. Very sweet scented. There is a curious variety (*P. officinalis duplex*) with a double corolla, one, strung as it were, over



AUTUMN FLOWERS (CLEMATIS FLAMMULA, FRENCH MARIGOLDS, ETC.) AT FAIRFIELDS, HANTS.

states that he is veering round to the opinion that one year is even better than two. Certainly the finest fruits come from the youngest plants, and this year he is experimenting, on a somewhat large scale, to decide the question for himself whether it is not more desirable to break up the plantation every year. British Queen does very well at Mentmore, and a fair number of plants of this sort are grown.

The visitor is struck by the variety of the gardening at Mentmore. There are about forty houses in which specimen plants in endless variety and flowers from Primulas to Orchids may be found; there is one erection devoted entirely to Carnations, and there is a splendid Palm house. Out of doors there is hardly a phase of the art which does not find expression, and though formal gardening does not seem to be highly favoured, the Italian garden, near the house, is an admirable specimen of this difficult, and to most people not very attractive, style. A border on a terrace overlooking the kitchen garden is, by the owner's direct wish, kept filled with old-fashioned flowers, such as may be seen in cottage and farmhouse gardens. From some of the trees Clematis and

characteristics one would expect to find in the garden of the versatile individual who, while one of our most brilliant public speakers, has made a name in literature, is a prominent statesman, and yet can find time to devote himself to horse-racing and other sport. It is this broadness of character that has helped to give the ex-Premier the high place he occupies in the English-speaking world; it is the same characteristics that make his garden worth inspection. There is no "faddiness," no exclusive devotion to one class, but a liberal broad-minded adhesion to all that is worthy of a place in a good garden where space is ample, and there is no lack of labour, and yet there is a strain of conservatism too. There are some fine old Wych Elms whose shadows fall over the fruit trees, and whose roots fill the soil no doubt to their detriment, but they are not to be touched on any account. And we must confess that looking at their gnarled trunks—most curiously fashioned—and their picturesque outlines we can sympathise with the feeling that prompts the order. His lordship evidently does not need to be reminded that there are none too many of these old and twisted Wych Elms growing in British



the other, though the lower one is really a calyx altered into a corolla.

*P. suaveolens* (Beet?).—A syn. of *P. Columne*.

*P. Tommasinii* (Gren. et Godr.); syn. of *P. Columne*.

*P. wralensis* (Fisch.) syn. of *P. macrocalyx*.

*P. variabilis* (Goup.); syn. of *P. intermedia*.

*P. veris* (L.).—This is the old name given by Linnæus to *P. acaulis*, *P. elatior*, and *P. officinalis*, and which by custom has been given to garden Primroses in general, that is to say, to the mixture of all the varieties.

*P. vulgaris* syn. of *P. acaulis*.

I have purposely excluded from this treatise the Primulas that are not hardy and must have greenhouse treatment, such as *boveana*, *floribunda*, *imperialis*, *obconica*, *prolifera*, *sinensis*, and *verticillata*, as they do not come within its scope.

I desire to thank the readers of THE GARDEN who have followed me thus far in a study of the Primulas; it has been made in the hope of rendering some service to the many admirers of this beautiful genus who may have found themselves puzzled by the great mass of synonyms with which it is burdened, and who may also have been misled by the involuntary errors of those who send out species incorrectly named.

HENRY CORREVON.  
Geneva.

N.B.—I may add that I should be happy to communicate with anyone who wishes to write to me on the subject of Primulas, or, indeed, of any other plant, whether to add to my own information or to answer their enquiries. The address given above will suffice. H. C.

## THE INDOOR GARDEN.

### TYDÆAS.

WHATEVER they may be botanically—and on that point there seems to be some doubt—the plants known generally as Tydæas are particularly valuable for flowering during the autumn months. Their period of blooming is not limited to the season just named, for they may be grown to flower throughout the greater part of the year, but the bright-coloured flowers are perhaps more appreciated now than at any other time. They are nearly related to the Achimenes, and the rhizomes or corms are a good deal similar, but more robust. Anyone desirous of commencing their culture can obtain them very cheaply when dormant in the winter or early spring. They should be potted at once, as they suffer if kept long out of the soil. A liberal amount of vegetable matter is required in the potting compost; a mixture of equal parts of loam and leaf-mould, with a good dash of sand, suits them well. When potted—say, early in March—they should be placed in a cool house and given just enough water to keep the soil slightly moist until the young shoots make their appearance. If a warm greenhouse temperature is maintained during the spring months, by May they will be sufficiently advanced to be shifted from 3-inch into 5-inch pots. In the summer a cold frame is a very suitable place for them, and towards the end of August they will need a little heat. At that time they will be

showing flower, if not actually in bloom. Afterwards they must be gradually kept drier till they go to rest. Each plant will generally produce several rhizomes, and any particular variety can be readily increased thereby. If the tops of the young shoots are taken when they are about 3 inches or 4 inches long and inserted as cuttings they will easily strike, but this is a method seldom adopted. If artificially fertilised they seed freely, and, if the crossing is carried out in a systematic manner, some very interesting forms may be obtained. The seeds, which are very minute, should be sown in heat in February, and if treated like the Gloxinia—to which, indeed, they are

and most interesting of the many lovely leguminous plants which are found wild in Australia, the peculiar shape of the scarlet flowers with the large and curious black blotch at the base of the upper petal compelling attention. The difficulty experienced in its cultivation is in getting it to grow freely during the first few months of its life, for, although the seeds germinate freely and the tiny plants may grow well for a few weeks, they are almost certain to become stunted. If this happens they rarely grow away again, but gradually dwindle away and die.

To overcome this difficulty in some places grafting has been resorted to, with the result that very fine well-flowered plants have been obtained with no more trouble than attends the cultivation of ordinary greenhouse plants. The stock used is the common Bladder Senna (*Colutea arborescens*), and the method of procedure is as follows:—Seeds of the *Colutea* are sown singly in thumb pots plunged in bottom heat about three weeks in advance of those of the *Clianthus*. By this means the stocks are a little firmer than the scions when grafting takes place. The operation should be performed when the seedling *Clianthus* are but a few days old, before if possible, but at any rate not much later than the development of the first true leaf. Needless to say at such a tender stage the operation is a very delicate one and needs performing with great care, both stock and scion being very soft and slender. With a very sharp knife, however, and care there need be little risk of spoiling the scion.

The methods of side and inverted saddle grafting may be used, in the latter case inserting the wedge made by the scion between the cotyledons of the stock. A single tie with some soft material will be found sufficient to keep the graft in place till a union has been effected, which may be looked for in from ten days to a fortnight providing a fairly brisk bottom heat and a very close atmosphere are given; a bell-glass placed over the plants is a very good plan to adopt. After the union is effected the plants should be gradually brought into the open house. From this stage they should never have a check. As the stock is a quick grower, frequent repotting will be found necessary, using rich fibrous loam with which a fair quantity of sand has been mixed.

When 5-inch or 6-inch pots have been reached the plants should be transferred at the next shift into hanging baskets, and in these they will flower. A minimum temperature of from 45° to 50° is suitable and a light airy position is necessary. When the baskets are well filled with roots manure water may be given with advantage. The length of time the plants may be expected to flower depends to a great extent on their strength. A specimen grown in an 18-inch basket at Kew began to flower in February of last year and continued to do so well until October, being at its best from May until August, and at several different times it carried more than forty heads of flowers. Stopping of the shoots is not to be commended. When they get very long they may be pegged round the basket, or, if the plants appear to be growing away with one strong shoot, the point may be pinched out, and that will cause a number of growths to spring from the base, but by stopping shoots do not readily spring from buds on the stem, as is the case with most plants.

W. DALLIMORE.

## NOTES ON LILIES.

### "LILIES FOR ENGLISH GARDENS."

I NOTICED Mr. Robert W. Wallace's remarks on my criticisms of the above charming addition to our garden literature, which now floods the British market, truly Adam and his followers in the gardening art have at no past period been placed on so high a pedestal. Napoleon called the British "a nation of shopkeepers." I wonder what great man will call us a nation of



nearly related—most of the young plants will flower in the autumn of the same year. These garden forms of Tydæa are usually classed by botanists in the genus *Isoloma*, one species of which, *I. hirsuta*, is sometimes planted out in mixed beds in Hyde Park, and bears its bright-coloured flowers towards the latter end of the summer. T.

## THE CULTIVATION OF CLIANTHUS DAMIERI.

MANY are the attempts made to cultivate this beautiful plant, yet it is seldom that well-flowered specimens are to be seen. Without doubt, when well grown it is one of the brightest coloured



"blue aprons." It is but four years and a half since I left the shores of Old England, and during that time from this distance it appears to me that people at home have gone mad over gardens. Dr. Masters used to speak of us Lily growers as Lily maniacs, or some such name. Then came the daft Daffodil men, but now the frivolous British public have put on the serious aspect of their character, and to feed them with suitable food a publisher is out of the running unless he has works on gardening—a good wholesome sign if it will induce people to go to bed early and rise with the sun. A friend of mine here spends a lot of money on his garden. He gets up at 5 a.m., and he and his coloured men start with a cup of coffee and then commence carrying water for the Roses, Dahlias, &c., but plants in tins have a bad time of it generally, as the water is poured on whether needed or not. I told him that his investments pay in ensuring robust health and happy days. He replied they do, and it was this three hours work before business that made him spend money so freely on his garden. But this you will say is not answering Mr. Wallace.

L. Henryi is no doubt a very distinct Lily, but all the same I consider the L. tigrinum section covers it. Mr. Max Leichtlin considers it only a form of L. tigrinum, and he is not a bad judge. When I had formed my opinion I submitted it to my good friend, as I am cautious in advancing an idea which may differ from generally received opinions, and my motive was to draw attention to the subject by having the plants L. Henryi and L. tigrinum grown side by side and note their characteristics. Mr. Leichtlin and I may be mistaken, and I think if the verdict is given against us we shall humbly bow to it. Mr. Wallace may have been the first to offer L. Henryi for sale, but I think I could prove it had passed through two and most likely three hands before he received it. I never like to give away trade secrets, and perhaps Mr. Wallace will await my return to settle this point. I do not know where I got my information of the plant being called a yellow L. speciosum, but certainly not from Mr. Wallace, as I saw very little home gardening literature till I arrived in Cape Town in August, 1901.

The Japanese-grown bulbs of L. longiflorum attain a much larger size than they do in Bermuda, hence there is more food for the Japanese L. longiflorum to live upon, consequently a greater number of flowers to a plant. Should the cultivation of L. longiflorum for shipping be followed up as I have suggested in the Cape Peninsula you will get bulbs that are capable of giving up to twenty flowers. In Japan I did not hear of any variety that had more than fifteen flowers. The description given of L. Harrisii quite agrees with a form of L. longiflorum growing here in the municipal gardens, and which is the first to flower, but not the one that gives the most flowers. I saw the same plant in Japan, broad, dark green foliage, and suggested it should be grown separately, but the Japanese, like the great financiers who support one metal as of standard value, do so on the same principle, as it is easier to work one than two. So the Japanese decided to get rid of all but the one with the long, narrow leaves, being the most floriferous, and I suggest the name L. longiflorum multiflorum.

I have much pleasure in giving Mr. Wallace the authority for the names L. speciosum roseum album and L. speciosum punctatum album. It was no other than the conceited writer of this letter. The names Krætzerei and album novum appeared to me meaningless, and as the true L. speciosum roseum has a green stem and L. Krætzerei has a green stem, the conclusion was simple. L. speciosum punctatum has primrose anthers and L. speciosum album novum has primrose anthers, so the conclusion as to the relationship was again simple. The colour of a L. speciosum bulb largely depends on exposure. L. Batemanniae and L. venustum I invite anyone to plant side by side, the bulbs European grown and the same size, and see if they can distinguish the one from the other, that is always supposing that the L. Batemanniae has been some years in Europe. I do not wish to cast any

reflection on the judgment of my old friend Mr. Wallace's father, but, like the writer, he was fallible, and I think he erred in judgment. Mrs. Bateman on one occasion asked me what this Lily was Dr. Wallace had named after her, and I gave my opinion that it was simply L. venustum, and as L. venustum and L. Batemanniae are not known in Japan as different plants, it is fairly conclusive, I think, that the plant is under two names, the best selling one being L. Batemanniae. Amateur and trader have been benefited by the naming of Dr. Wallace.

Mr. Wallace regrets I did not contribute to the Lily conference of 1901. I knew nothing of the conference till it was over. The Royal Horticultural Society does not rise to its opportunities, or it would give years in advance a list of its proposed conferences, and this it could easily do, as I have years ago suggested to members of the Royal Horticultural Society's Council, by printing on its schedule the conferences, say, five years in advance and the anticipated conferences, so that exhibitors would have a chance of making preparations, but the Royal Horticultural Society has hitherto sprung upon its members in January the conference for the year—a very short-sighted policy, and in some cases I have noticed a marked disadvantage to the Royal Horticultural Society. It was not till I reached South Africa that I had the chance of reading gardening papers. In 1900 I saw a *Gardener's Chronicle* in a seedsman's office at Sydney, and, noticing an extraordinary letter from Mr. Sutton dealing with the Royal Horticultural Society's trials at Chiswick and his experimental grounds, I borrowed the paper to answer the same on my first voyage amongst the South Sea Islands, and posted my answer at Fiji, but it went into that Hades which is the terror of budding journalists—the Editor's waste-paper basket.

Cape Town.

PETER BARR, V.M.H.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### ROSES IN POTS.

WHEN a special house can be set apart for the cultivation of these plants they may be pruned and removed indoors now. Very little fire-heat should be given at first, but it may be gradually increased as the plants start into growth. Syringing may be practised daily until the new shoots are about an inch long, but after this it should cease. Careful ventilation is most important in the early forcing of Roses. Cold draughts or the exposure of plants to sudden changes of temperature are sure to bring mildew, which is a troublesome enemy if not kept in check. Growers who have to force their Roses among other plants should keep them out of doors for another month. Hybrid Perpetuals may be plunged in ashes out of doors until required for forcing. In severe weather they should be protected with some dry Bracken. The Teas are safer placed in a cool pit or frame.

#### CAMPANULA PYRAMIDALIS.

In order to prevent the ill effects of excessive moisture these plants in pots should be plunged in ashes or cocoanut fibre in a cold frame during winter, and afforded plenty of ventilation to prevent damping or undue excitement of the plants. Personally, I am favourable to their having the full benefit of the winter's frost, for they start into growth more readily and flower earlier than those placed in frames.

#### SUCCULENTS

will need but little water during winter, and most of them delight in a rather dry atmosphere. Almost all of them enjoy full light. The nearer they are kept to the glass the better they will flourish. The numerous species and varieties of Cactus and Phyllocactus are most interesting and attractive flowering plants, and no class of plants is more easily grown.

#### MIGNONETTE.

Damp in cold frames will be injurious to the well-being of these plants. Let them be brought indoors from the frames and placed near the glass in a light and well ventilated position. The stems should be provided with neat stakes to which they should be secured as they grow in height. The earlier batches coming into flower will greatly benefit by having frequent applications of weak liquid manure water given them. Later batches should be thinned to three or five in a pot as occasion requires. As the stems of Liliiums die down the pots may be plunged and covered in a bed of ashes or cocoanut fibre out of doors, where they will remain plump and sound until required for starting. One of the most important conditions for the successful cultivation of plants during winter is light. Cleanliness of the houses, and especially of the glass, so that sunlight may not be obstructed, are also important essentials. An effort should be made to wash the interior of all glass houses.

Wexham Park, Slough.

JOHN FLEMING.

## THE KITCHEN GARDEN.

#### ASPARAGUS.

THE growths should now be cut down, using a pair of garden hedge shears for the purpose. The surface should be hoed, all weeds and rubbish raked off and burned, and whenever the weather will allow give a thorough coating of good half-decayed farmyard manure, which should be covered with soil taken from the alleys, leaving them neat and tidy for the winter. Few vegetables are more highly appreciated than Asparagus when forced, and few things are more easily produced. No time should be lost in making a commencement, selecting good strong crowns for the purpose. It will be necessary to provide a mild hot-bed, consisting of three parts fresh leaves and the rest long stable litter; this may either be done in low houses, pits, or frames. The roots should not be kept out of the ground longer than is necessary or they will suffer in consequence, therefore they should not be lifted until everything is in readiness to receive them. Cover the crowns immediately to the depth of 4 inches or 5 inches, using a light porous compost. Thoroughly water in and syringe morning and afternoon. When made up in the open on hot-beds it will be necessary to keep the frames well lined with fermenting material as the heat declines in the beds, and the frames should be covered at night.

#### POTATOES

which were lifted and placed away under temporary cover should now be carefully looked over, removing every tuber which has the slightest trace of disease, and I fear in many places all the late crops have suffered considerably. The sound tubers may then be stored away, making them quite secure against frost.

#### HORSE-RADISH.

Part of the bed should be taken up yearly and a twelve months' supply stored away where it can be easily obtained; this is by far the best method. Very often it is dug up as required, which means that many of the young crowns are spoilt and the bed always presents an untidy appearance. Any time after this date the work may be taken in hand. We always make a practice of doing half the bed yearly. First open a deep trench and the sticks may then easily be lifted. Work in plenty of farmyard manure at the bottom and on the second spit, and plant medium-sized sets, burying them 1 foot below the surface. If the land is kept well manured there is no reason why good Horse-radish may not be grown on the same ground for years. The part which is not lifted will be much benefited by receiving a good dressing of old hot-bed manure. Every endeavour should be made to produce a free, quick growth.

#### CABBAGE.

Look carefully over the beds and make good all vacancies with the strongest plants from the seed bed; carefully plant and make them as firm as possible. Should the weather remain open it will be well to make yet one more planting in a warm,



sheltered part of the garden. Should a severe winter be in store for us these will probably come through much better than the earlier ones, which have made an unusually free growth this autumn.

E. BECKETT.

## THE FRUIT GARDEN.

### POT VINES.

THE house for these should be now cleansed and prepared for starting those that are intended for early use. A shallow bed of fermenting material, consisting chiefly of leaves, with a little stable litter added, should be prepared in such a way as will admit of the canes being trained near the glass, but be careful that a violent heat is not created, for it is not safe to subject the roots to a temperature exceeding 60°. Top-dress the pots with turfy loam mixed with a suitable fertiliser and wood ashes, and firmly plunge them, with

damp from the house by ventilating freely on clear days, and as far as possible excluding it in wet or foggy weather by keeping the ventilators closed. Examine the bunches daily, removing decayed berries, and use first the bunches of bad keeping varieties that commence to decay, which are invariably those whose berries have not been properly thinned. Should the sun be powerful enough to discolour Muscats, shade the bunches with sheets of paper, which will also assist to prevent shrivelling.

### EARLY FIGS IN POTS.

If the instructions respecting the repotting, top-dressing, and the placing out of doors of early pot trees have been attended to they will now be in a fit condition to be prepared for forcing. Having had their shoots properly disbudded or stopped during the growing season no pruning will be required, but should this have been neglected

cut away any weak or other growths that encumber the trees and then cleanse them. Brown scale is frequently troublesome, but it can be easily removed by a mild solution of soft soap and warm water, applied with a brush. This must be carefully done, so that the embryo fruits are not injured. For starting the trees into growth a mild hot-bed, similar to that recommended above for pot Vines, should be made, into which the pots should be plunged, the trees being near to the glass, and afforded sufficient space to develop their foliage properly. Commence forcing gently by keeping an artificial night temperature of 50°, that for the day being 55°, with 10° more from sun-heat. It is surprising what fine crops may be grown upon even small trees of this description provided they are well fed while their fruits are developing.

T. COOMBER.

## HOHERIA POPULNEA.

THIS is a New Zealand shrub, that in habit and flower alike reminds one of a large and coarse-leaved *Deutzia*. A small seedling came to the Trinity College Botanical Gardens some years ago from Mr.

Thomas Smith, of Daisy Hill, Newry; it is at present 10 feet or more in height, and has flowered freely during the past two years. The illustration herewith, from a photograph by Mr. George E. Low, of Kingstown, gives a good idea of the flowers and foliage. The plant is malvaceous in structure, although facially it does not look at all, or in any way like a member of the Mallow or Hollyhock family. According to the illustrations of this species, and two or three of its forms in Kirk's "The Forest Flora of New Zealand," the plant at home varies considerably, and I am glad to say that Mr. Smith was

fortunate in securing seeds of the best form, as figured in the work above cited on plate 52. As an autumn-flowering, cool greenhouse shrub this *Hoheria* deserves notice, and it might eventually prove hardy in Cornwall or Devon, or in the south and west of Ireland, the sheltered warm glens of County Wicklow, and other mild localities. The plant may be raised from New Zealand seed, or it strikes from cuttings of the young growth readily in spring. It is a distinct free-blooming shrub of which more is likely to be heard when it becomes plentiful in gardens. — F. W. BURBIDGE.

## THE KITCHEN GARDEN.

### THE POTATO CROP IN 1902.

UNDOUBTEDLY the year's Potato yield is a question which concerns many, the consumer as well as the grower being quite justified in reviewing the prospect with some misgiving. Records already given of Potato crops prove that this scarcity is not confined to any particular district, but is more or less universal. Comparison between two succeeding seasons shows them as opposed one to the other as is possible for them to be. Last year Potatoes were almost a drug on the market at digging time, and in the late spring they proved to many a hopeless reserve. This autumn the majority of growers lament the smallness of their stock, and disease makes an uncertainty of those already harvested. Those varieties which have done well this summer will, no doubt, create a demand for seed of their particular kind in the coming planting time. In this neighbourhood a variety that is in particular favour with almost every class of cultivator is Up-to-Date. Those who planted largely of this Potato are rewarded with a yield envious to those who had pinned their faith on some others, and the quality few, if any, complain of. In a year like that of 1901 there was in Up-to-Date a tendency to become coarse and hollow, but no such complaint is heard this year. A variety that has always done well with us is Clarke's Maincrop, good in quality, uniform in size, very even in crop, and hardy. This time it fell much below its usual standard, the yield being a better sample for seed than kitchen use, and the balance therefore between this and Up-to-Date goes heavily in favour of the last-named. Both are very good disease resisters. Syon House and British Queen, two others that have been grown, have both passed beyond hope for future planting in the field. In the garden the first-named is a good variety, and is one well spoken of by many growers, and that, too, for field work by some. I am entirely at one with "G. W. S." in the advocacy of fresh stock, especially in the field, for here, as a rule, the methods of cultivation are so far removed from those of the garden that unless fresh material is sometimes employed there is a loss of the necessary stamina to carry them through.

Here we have an alternation of light and heavy soils, the Potato land being governed by rotation of the Corn crops, yet despite this frequent change of soil seed changes are just as strictly necessary to keep up the standard of crop and quality. In some land it is really marvellous how few sorts are found absolutely to suit its nature, and in others it is equally curious that any Potato will adapt itself. To show the adverse nature of the season my case, which is one of many, reveals a startling depreciation when it is said that from the same extent of ground this year there was an average of less than four tons to the acre, while last year there was four times the quantity. Against this must be placed a higher cost of cultivation due to wet weather and weeds. Disease has given trouble in that ground most



HOHERIA POPULNEA IN THE TRINITY COLLEGE BOTANICAL GARDENS, DUBLIN.

their base resting upon a bed of turfy loam mixed with decayed manure. Should the bed exceed the temperature indicated, slightly draw the plunging material from the pots in order to lower it. Start the canes in a mild temperature of 50° at night with an increase of 5° by day; create the needful atmospheric moisture by occasionally syringing the canes, &c., with tepid water, and keep the soil moist.

### LATE VINES.

At this season of the year, when the leaves of late Vines are falling, and the weather is usually damp and changeable, Grapes often keep badly, especially so those that are imperfectly ripened. Keep as far as possible an equable temperature of 50° by the assistance of artificial heat, expelling





PEAR CHARLES ERNEST, SHOWING ITS FRUITFULNESS AS A YOUNG TREE.

heavily manured. Presumably the lightness of the Potato crop is due entirely to the cold and sunless season, certainly not because of the absence of root moisture nor by reason of late frost cutting down the growing tops. This happened in the garden with early plantings, but not in the field. The short period of extreme summer heat prevailing in July had a paralysing effect on vegetation, following as it did on such a long term of cold, and Potatoes are as keenly sensitive to such changes as are most crops. To the check from this, in part, I attribute the smallness of the sample and lightness of the crop, and they are causes over which we have no control.

Rood Ashton, Wilts.

W. S.

#### TOMATO CULTURE FOR MARKET.

THE culture of the Tomato under glass for market has now assumed enormous dimensions both in England and in the Channel Islands, Guernsey especially, where a great part of the island is given up to glass houses erected for this purpose. The first principle for the grower to consider is that of economy, that is to say, to find out how the best results can be produced at the least possible cost. Experience has shown that this can well be accomplished by following three systems of culture. Firstly, in conjunction with Chrysanthemum culture; secondly, along with that of the Vine; and, thirdly, growing Tomatoes alone. The first named method is largely practised by market growers, and is found to be most convenient, the Chrysanthemums occupying the houses during

winter and the Tomatoes during the summer months.

The glass houses may vary in width and length. For summer crops those 25 feet wide are found suitable, while the length may be anything from 100 feet to 300 feet, according to the land at disposal. The side walls of these houses should be at least 4 feet high, and the apex 12 feet high. For early and winter crops smaller houses should be erected, say 12 feet wide and 8 feet high, and if sunk in the ground 2 feet or so much advantage as regards warmth will accrue.

Winter and spring Tomatoes are best grown in pots and trained to a trellis near the roof. The houses should be built in an open position well exposed to the south and west, and protected if possible from cold north and east winds by hedges, planted not too near, or by some other means available. The question of soil is very important when one determines the position in which the houses are to be built. If this is not present of fair depth and good quality, the value of the land is very much discounted, for if the houses are built on poor land money will have to be spent in buying good soil. The question of drainage also is very important; if the land is not well drained

this will be the first essential work to claim attention. A distance of 18 inches between the plants throughout the house is found suitable. The house should be ready for planting the last week in April, and the plants by then should be 12 inches to 18 inches high, strong and sturdy, and with the first embryo fruits formed. To produce such plants seeds must be sown in January. The number of plants grown will of course be governed by the number and extent of houses to be planted. As soon as the planting is finished each plant should either be staked or string should be fastened at one end to a peg driven in the border and at the other end to the roof; to this string the plants may be loosely tied as growth progresses. Little or no fire-heat will be necessary during the day, but the night temperature must not fall below 55° Fahr. The grower's daily work now will be to do all in his power to bring about a hardy and healthy growth by providing the conditions most likely to ensure this by careful ventilation and watering. On bright sunny days air may be admitted freely consistent with the maintenance of a generous growing atmosphere of from 65° to 70° in the middle of the day. When a good set of fruits is secured, and the border is well filled with roots water must be given abundantly, and manure water at every alternate watering. Until a good set of fruit is obtained air must be liberally admitted daily, and in order that a good crop of fruits may be had the grower should pass a small soft brush or rabbit's tail over each of the flowers. A good average set would probably be secured at such a favourable time of year without

this precaution, but by following this practice a much heavier crop will be had. When the fruits are formed and one wishes to force them, the plants may be given a higher temperature, especially in the afternoon after closing the house. The lateral shoots should be trimmed at least twice a week, keeping the plants always to one stem only. After a time, when the fruits are swelling freely, a top-dressing of fresh soil, with which manure has been mixed, will greatly strengthen the plants and improve the fruits. By the end of summer the plants will be 6 feet high or more, and then they should be stopped, for any fruit which might afterwards be set would not be worth waiting for. How many pounds of fruit a single Tomato plant is capable of producing is a question difficult to answer, and would be replied to alike by hardly two growers. More than twenty pounds per plant have been recorded, but this is quite exceptional, and a yield of eight pounds per plant may be considered the average. A. P. H.

## THE FRUIT GARDEN.

### PEAR CHARLES ERNEST.

ON December 4, 1900, this, one of the most promising of recently introduced Pears, was shown by the raisers, Messrs. James Veitch and Sons, Limited, Chelsea, before the fruit committee of the Royal Horticultural Society, and then received an award of merit. It is of continental origin, and, although it has been grown in this country for some few years, is comparatively little known. It was shown at the great Pear conference at Chiswick, 1885, by the late Mr. Shepperd, who sent it from Wolverstone, Suffolk, and it was then thought highly of, but seems since to have lapsed into obscurity. Pear Charles Ernest both grows freely and bears heavily, as will be seen from the illustration, which was prepared from a photograph taken in Messrs. Veitch's Langley nursery. It is equally good as a cordon, bush, or pyramid. The fruit is not unlike Doyenné du Comice, it is large, and of good quality; the tree is of distinct habit of growth, forming an erect pyramid, and bears well on the Quince stock. This Pear is in season from October to December.

### SOUTH AFRICAN FRUIT CULTURE.

(Continued from page 250.)

THERE has been no attempt to grow fine Grapes for dessert, though the climate is perfectly able to do so, as glass in this country is quite superfluous. The farmers have been strongly urged to do so by the agricultural associations of Cape Town, as there would be good markets for them in the large towns.

A slight stimulus to such occurred in 1897 by the improvement of other dessert fruits, and table Grapes were in demand; but there was no enterprise among the growers. Mr. Eustace Pillans, the Government agricultural assistant, hoped to see the two objects well kept in view in the culture of Vines, and urged the matter in his report, but up to the present year (1902) nothing whatever has been done. The bunches often grow to a great size, but as the berries are never thinned they remain as small as marbles and densely packed together.

In 1886, the phylloxera began to be troublesome, and the Government took steps to arrest its progress by means of bisulphide of carbon; but it was only partially effective, so that in 1898 the phylloxera acquired a footing, and severer measures were adopted in abolishing the old Vines and introducing American stocks. With regard to bisulphide of carbon, it was



found that the "killing" dose on rather dry hilly slopes, with a soil of granitic loam, was 240 c.c. for each Vine, occupying 16 square feet, in which twelve holes were made, and 20 c.c. inserted. The vapour passing through the dry soil killed the insect. If the soil was moist, 300 c.c. had to be used. The more effectual and permanent remedy was secured by the introduction of the American Vines. The Government raised many thousands of cuttings for distribution among the Vine farmers.

The following are the varieties which Mr. Pillans records in his report for 1899 as having proved themselves to be the best

#### AMERICAN VINES.

1. No American Vines were found to be under the influence of the phylloxera.

2. The Riparia, when planted in snitable soil, has given entire satisfaction, and should be used in preference to any other kind in such soil. Vines grafted on Riparia are as a rule more productive, but less vigorous, than the same kinds on Rupestris, Aramon Rupestris, and Jacquez.

3. The Rupestris, whether Metallica or any other kind, is only a partial success, as in heavy, damp, low-lying soils, with water in the under-ground, which can be reached by the roots, this Vine is liable to die towards the end of summer, sometimes in alarming quantities. This tendency decreases with the years and with grafting. In very dry soils Rupestris seems to suffer from drought, and is certainly inferior to Aramon Rupestris. For Hanepoot, Rupestris is an unsuitable graft-bearer in the great majority of cases, whereas the other varieties do well, grow stronger than on Riparia, but are less fertile in good land, requiring longer pruning.

4. The Aramon Rupestris is the strongest growing variety of American Vines used in the Colony; its adaptation to all kinds of soil is exceptionally great, and it grafts well, but bears the Hanepoot worse than Rupestris.

5. Jacquez is so far the only variety upon which Hanepoot has been in a number of cases successfully cultivated for over seven years, and there is no reason to doubt its usefulness in this direction.

6. American Vines require generally, on account of their great fertility when grafted, a better treatment, including cultivation of land, drainage, manuring, planting at not less than 5 feet, less topping, and where trellising is practicable it commends itself to strong growing varieties.

It is interesting to observe that the first introduction by the Cape Government of Vine stocks from America were received with almost complete incredulity and coldness. Thus, of the million cuttings distributed gratis by the Government not one-tenth received the smallest attention.

In his report for 1893 the Agricultural Assistant for Stellenbosch, Mr. C. Mayer, observed: "On the whole the reconstitution and renewing of vineyards is progressing slowly. It is true a good number of American Vines have been planted, but a few only have been grafted, and very few have been added to the number of 1892. This slow progress is greatly due to the aversity which exists among farmers to the undoubtedly expensive operation of grafting. Many of them think, on the strength

of the resolution passed last session in the Legislative Council, that the production of grafted American Vines would be soon taken in hand by Government, and that they would then be able to purchase such Vines at a reasonable figure."

At the present day the farmers have realised their folly. Quietly, and perhaps mainly by imitation of their more intelligent neighbours, the average wine farmer has now got his own "mother plantation."

The season of 1900-1 was very unfavourable, in consequence of the dull and rainy weather in January, that month and February being normally the driest in the year. Consequently the Grapes were deficient in sugar, so that many growers converted more or less of their output into brandy. The Government produced at Constantia barely one-half of the usual quantity.

The vintage of 1902 promises to be a "record year" (March, 1902).

(To be continued.)

#### PROTECTING BUSH FRUITS.

THE question of protecting bush fruit trees from the ravages of birds and the effects of frost is an important one to the gardener, and very often the quantities of fruit gathered depend largely upon whether efficient protection has been afforded or not. The old-fashioned method of throwing fish nets over Currants, Gooseberries, and Strawberries is to some extent protective, but it leaves much to be desired. Birds can easily reach the fruit through the meshes of the net, and the work of gathering the fruit is made very troublesome. The nets have to be removed and replaced each time fruit is required, which means a considerable loss of time, to say nothing of the damage done to the nets by tearing.

The accompanying illustration shows a system of protecting bush fruits, immeasurably superior to the one just mentioned. A permanent wooden framework is erected completely encircling the plantation to be pro-

tected, and a covering of close-meshed wire netting is then fastened to the wooden stakes. It is, of course, quite simple to arrange an opening at each of the corners of the enclosure to allow of the admittance of workers. Ordinary fish netting may be made use of instead of wire netting, if the latter is found to be too expensive. Such a covering as is illustrated protects the plants from frost in the spring when they are in bloom, and in the summer from birds when the fruits are ripe. A man can conveniently make his way about beneath the net, and fruit picking can be accomplished with ease and despatch. In the case of Currants and Gooseberries the erection might remain for many years—as long as the fruit trees themselves, in fact—but with the Strawberry this, of course, would not be practicable. Strawberry plants are not retained after they are three years old, and when the plantation was destroyed the framework and covering would have to be transferred elsewhere. Supposing fish netting to have been used, this would not be a serious undertaking. In view of the fact that the Strawberry plantation is not in one place for more than three years, it would be well always to make use of fish netting, leaving the wire netting to cover the Currants, Gooseberries, &c.

#### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

#### CUTTING THE FOLIAGE OF HARDY PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have been much interested in this question, which is one I have devoted some attention to for years. In the main one must agree with the opinion that cutting off the stems and leaves quite close to the ground is injurious and weakens the plant. It is frequently done for the sake of tidiness, but this is as bad as cutting off the leaves of bulbous plants before they have



THE MOST SATISFACTORY METHOD OF PROTECTING BUSH FRUIT TREES. (IN SYON HOUSE GARDENS.)



ripened. Of course some herbaceous plants will throw up fresh foliage the same season, but one would understand that this constitutes a strain upon the resources of the plant. There are, however, some plants which appear to suffer little from having their foliage cut off close to the ground when the flowering is over. I know of one garden where *Papaver orientale* and the old double *Paeonia* have been cut down in this way for many years, and yet have continued to bloom as freely as before. I have put in a plea for the *Paeonia*, and it has been left uncut this season for the first time, and I anticipate that there will be an improvement another year, though it is hardly possible to conceive that larger flowers can be produced. The Oriental Poppy is almost impossible to destroy, so that one thinks less of its hardihood under such treatment. My own practice is to allow the plants to ripen their foliage, and only to cut the stems far enough back to make them less obtrusive until the leaves have ripened. S. ARNOTT.

#### [TO THE EDITOR OF "THE GARDEN."]

SIR,—Adverting to the discussion on this subject, it seems to me that much depends upon the plants themselves. Most of the perennial Asters, except the *Amellus* section, may be cut down as soon as shabby with impunity, because in their case the new growths are well advanced by the time flowering is over. The same with late *Phloxes*. The early ones I only shorten so as to keep the plants growing and perfecting the basal shoots.

*Delphiniums* I only shorten by cutting off the tops that carry the seed pods; I look upon them as semi-tuberous, and think the roots require the majority of their leaves left on to ripen them. So do the tall *Campanulas*, such as *C. latifolia*. *Antirrhinums*, on the other hand, will grow again readily if the stems be cut close to the base, where there are generally a number of young shoots.

So that, after all, it appears to come to this, that those plants may be cut down which start new growth while the plants are blooming (*Monardas* and *Harpaliums* are other instances), and those should not which have their new stem-buds dormant until the next season of growth is approaching. It may, of course, be said that *Delphiniums* form their new stem-buds while the old shoots are blooming. So they do to a certain extent, but to force the plants to make two sets in a season must surely put too great a strain upon them for their permanent welfare. Thirlwood. T. J. WEAVER.

#### PEAR DIRECTEUR HARDY.

##### [TO THE EDITOR OF "THE GARDEN."]

SIR,—It is seldom that one would venture to recommend confidently a Pear on the experience of a single crop, but as this present season is notably one in which flavour in Pears is deficient, I make bold to advise all Pear fanciers to plant at least one tree of *Directeur Hardy*. We are eating it now, and it is superb in flavour, of good size, neither too big nor too small. Its flavour is suggestive of both *Chaumontel* and *Louise Bonne*. Coming a week or two before *Comice* is ready it is most acceptable, and, although we already have so many October Pears, I know of none to equal *Directeur Hardy* as it now is with us. Ours were grown on a wall, but I am confident from its growth that it will also do well as a bush, in the South of England at least.

W. WILKS, Vicar of Shirley.

#### GRAPES FOR EXHIBITION.

##### [TO THE EDITOR OF "THE GARDEN."]

SIR,—While reading the very interesting article on the above subject by Mr. Owen Thomas (page 269) a thought occurred to me which I should like to place before your readers. In describing *Black Alicante*, Mr. Thomas says this variety is easy of culture. Now, we hear this remark so often, and we know that in the opinion of most judges this variety is considered so easy to

grow, that it ought not to count so high as most others that may be placed in competition against it. To call it in question may seem nothing short of presumption on my part. I think it will be generally admitted that perhaps the two best known and most successful exhibitors of the day are Mr. Kirk, of Norwood, and Mr. Lunt, of Keir. A singular fact connected with these two growers is that both have been very successful in the cultivation of those varieties generally considered most difficult to grow. Mr. Lunt excels in the culture of Mrs. Prince, Muscat Hamburg Muscat of Alexandria, Alnwick Seedling, and Black Hamburg. It sounds strange to include the latter amongst difficult sorts, for is this not the Grape we recommend all amateurs to grow? Yet a perfectly finished bunch of *Black Hamburg* is as rare as a finely finished Muscat of Alexandria. Mr. Kirk, again, grows *Madresfield Court*, *Duke of Buccleuch*, and several other "kittle" sorts very well. The *Duke* I consider the most difficult of all to do well, as it is one of the most handsome and imposing when well grown.

I do not remember a single visit to Mr. Kirk—and I have paid him many during the last twenty years—in which I did not see most remarkable examples of this Grape in some or other of his vineries. Now, the question I wish to ask Mr. Thomas and those who think with him that *Alicante* is so easy to grow is, How is it that these two experts, Mr. Kirk and Mr. Lunt, are not successful with this variety? In all Mr. Lunt's victorious career I do not remember his staging a single bunch of *Alicante* in any of his collections, and I certainly never saw a creditable exhibition bunch of this variety at Keir. Only once do I remember *Alicante* being shown by Mr. Lunt, and that was in the class for this variety, and then he got second prize. The same with Mr. Kirk; he has not shown this variety, so far as I remember, since the last International Show held at Edinburgh, and not for many years, amongst all the many fine Grapes he grows, have I seen a creditable bunch of *Black Alicante*. The fact is this variety does not do well either at Keir or Norwood, and why should it fail in the hands of two such experts, when it is so easily to cultivate, is a question I leave others to answer.

Scotland.

A GRAPE GROWER.

#### INSECT PESTS AND THE FRUIT CROPS.

##### [TO THE EDITOR OF "THE GARDEN."]

SIR,—With the excellent notes from the pen of "G. H. H." (page 237) concerning the methods of combating insect enemies in the garden and orchard many will agree. That insects are left severely alone in hundreds of cases is quite true, and such instances must from force of circumstances continue. There is no limit to the good, useful, and cheap insecticides on the market, and this season instances are not wanting where fruit plantations, private and market, have been made odorless by the repeated applications of quassia to stay the determined attacks of the aphid family on fruit trees. It has been often repeated that gardening is an expensive hobby, and in a great measure it undoubtedly is; where regarded in this light, the gardener has almost invariably to place a limit on the purchase of necessary commodities for use in the garden. Then, again, restraint of labour involves other hardships, which often are such that they cannot be surmounted, although much more could often be done than is done, and an investment in a good insecticide is well laid out. Fruits of any kind, if the trees become infested with aphids, will most assuredly fall prematurely. Such instances bring with them their own reward.

"G. H. H." is inclined to regard the winter moth caterpillar as a friend in disguise. This, after the oft-repeated pressure brought to bear on the necessity of early extermination, is a move in a new direction. There is, however, a good deal of useful logic in such a theory, for in fruitful seasons trees do right themselves somewhat. It often happens, even admitting the truth of this, that the heaviest cropping sorts, or those which

fruit in alternate years through excess of crop, are almost quite free from caterpillar aids, and the more moderate and large fruited ones suffer. London Pippin, Stirling Castle, and Cackle's Pippin are names that suggest themselves as alternate croppers where caterpillars would do a useful work in thinning down their numbers appreciably. What the possibilities of thinning down these small fruiting sorts may be in the market orchard I cannot say, certainly in the undernamed private garden they stand a remote chance of being carried out, much as those responsible may wish.

To both trees and owner American blight is certainly a terrible enemy. If present in any appreciable quantity, anything calculated to rid the garden and orchard of such a dreaded pest is well worthy of practise. Gas tar and petroleum emulsion is a remedy that has found some adherents; so has petroleum alone, and methylated spirit, either of which instantly destroys life when brought into contact with it. Young Apple trees, and especially those growing against a wall, are quickly made cankerous if American blight is long left in possession. The east winds prevailing in the spring were no doubt to a very great extent the cause of the aphid pest on Plum and Apple trees, albeit "G. H. H." speaks lightly of such facts. These and other aphids are believed to be borne on the breezes from distant eastern regions. In support of this, one has only to reflect on the origin of the plagues inflicted on the Egyptian Pharaohs, and there is no reason why cause and effect in Nature should differ now more than in those ancient times. The present season would seem to have been particularly congenial to them, judging from their increase, and that, too, in unexpected places.

Rood Ashton, Wilts.

W. S.

#### CARPETING PLANTS FOR BULBS.

##### [TO THE EDITOR OF "THE GARDEN."]

SIR,—This subject well deserves the remarks made upon it by Mr. W. H. Divers and Mr. S. W. Fitzherbert, and one can only agree as a whole with what they have said on the subject. As Mr. S. W. Fitzherbert says, *Ionopsidium acaule* is an excellent surfacing plant, and is one, also, which is beautiful in itself. On the other hand it is an annual, and is not to be relied upon in the north to perpetuate itself by means of self-sown seedlings as it does in the south. In many gardens, also, where there is a risk of the flowers being knocked over by winds, a taller carpeter is an advantage, as it helps to sustain the blooms. Personally I like to see the tubes of the flowers of some of these bulbous plants, but this cannot be secured with a very close carpeter without the flowers being levelled by the first strong wind, especially when accompanied by heavy rain. Nor can one deny that such a *Crocus* as *speciosus* flowering among grass or through some dwarf plant not so close-growing as the *Ionopsidium* looks very charming indeed. I have this *Crocus* planted pretty freely and in various ways, but I was particularly delighted the other day by some flowers which had sprung up among a clump of *Euphorbia Cyparissias* and had opened in the sun. They were most delightful, and harmonised well with the "fleecy" look of the *Euphorbia*. Of course, *E. Cyparissias* is a plant which must be planted with some discretion on account of its encroaching habits, but the combination was a suggestive one which I hope will be helpful in other ways. For such things as spring bulbs of the character of *Snowdrops*, *Scillas*, and the like I find that *Saxifraga Cymbalaria* is a capital thing. One drawback the taller carpeters often have for a garden troubled with slugs is that they harbour these pests, which are exceedingly fond of the autumn *Crocuses* and often injure their beauty. Some of the smaller *Crocus* species seem, however, to object to being carpeted with any but the most surface-rooting plants, but such vigorous species as *speciosus* or the *Colchicums* have no difficulty in this respect. The *Acanas* are good carpeters for the *Colchicums* of dwarfer stature than the great *Colchicum speciosum*. S. ARNOTT.



## BOOKS.

**In a Tuscan Garden.\***—The writer of this very pleasant book does not publish her name, but the book itself reveals her to us as a *grande dame*, with all the refined instincts of her caste, and, withal, as a shrewd, kindly, and thoroughly capable woman of the world. She tells us how she has reclaimed a neglected house and garden of moderate size, the appanage of a large villa and park near Florence; also of her domestic and horticultural experiences during a residence of fourteen years, with many interesting sidelights on the character of Tuscan neighbours and dependents. Readers of the book will feel themselves agreeably in touch with a vigorous personality that is thoroughly in sympathy with the best aspects of gardening.

**The Silva of North America.**—The publication this autumn of volumes XIII. and XIV. of Professor Sargent's "Silva of North America" completes this exhaustive and monumental work, which has been twelve years in preparation. The illustrations comprise 750 plates, engraved in Paris from drawings by C. E. Faxon, and adequately represent 567 different species of American trees north of Mexico recognised by botanists. Professor Sargent, Director of the Arnold Arboretum of Harvard University, is widely known as the highest authority on the subject he treats. The

"In a Tuscan Garden." Published by John Lane, London and New York. 1902.

last volume contains an index to the entire fourteen volumes. To those who subscribed for the first twelve volumes prior to June 1, 1901, this index volume will be furnished without charge, and volume XIII. for 25dols. The work is sold only in complete sets, and the price for the fourteen volumes will henceforth be 350dols. net. No cost or pains have been spared in the mechanical execution of the work, which must always remain a standard on the subject which it treats. To the public libraries in all parts of the country it will be indispensable, and in many private libraries it must command an immediate place. Specimen pages and a sample plate will be submitted upon request. The address is Messrs. Houghton, Mifflin, and Co., 4, Park Street, Boston.

**Journal of the Royal Horticultural Society.**—No periodical publication is more welcome than the Journal of the Royal Horticultural Society, and this new volume contains a vast storehouse of information freely and judiciously illustrated. It contains no fewer than 368 pages, apart from the reports of the committees and "Notices to Fellows." The first paper is about "Fungoid Pests of the Garden," with coloured illustrations, by Dr. Cooke, followed by one upon such a practical subject as "Renovation of Old Fruit Trees," by Mr. George Bunyard. Two of the papers were given at the Horticultural Club, a most interesting one by Mr. Charles Pearson on "Birds *versus* Gardening," and "A Cape Garden" by Mr. H. M. Arderne. The Campanula paper by Mr. Prichard is profusely illustrated, and this can be said of almost all the

subjects. A paper that will please greatly is called "Plant Communities," by Professor Carr, and charmingly illustrated with flower groups. That of "Sea Holly, Sea Bindweed, and Yellow-Horned Poppy on Wicklow Coast" is very beautiful. Amongst the contributors to this volume are Miss Jekyll, "Pergolas in England," and the Hon. Mrs. Boyle ("E. V. B."), "Weeds of the Garden," whose articles we hope to publish shortly. We always turn with interest to the "Common-place Notes by the Secretary and Superintendent." Here is one about destroying wasps: "All fruit growers are only too well acquainted with the ravages of wasps amongst fruit, the damage seldom ending with the wasp, as flies and other insects follow and feed through the holes in the fruit made in the first instance by the wasps, until little is left save the outside skin or husk. There are many methods of keeping down the number of wasps, all more or less unsatisfactory, and there is no doubt that the best means of minimising their evil effects is to destroy all the nests. When the wasp has visited the fruit and secured all it requires it always flies in a straight line for its nest, and a sharp-eyed boy will quickly locate all the nests in the neighbourhood by following this line of flight. Having discovered the nests, it is a very simple matter to take some cyanide of potassium and put a little—say half a teaspoonful—into the mouth of the hole leading down to the nest. Most of the wasps that are really troublesome are *Vespa vulgaris*, and build their nests in the ground, so that there is no difficulty about destroying the nests, as every wasp that passes



NELLYMBIUM SPECIOSUM IN A JAPANESE GARDEN.



over the cyanide of potassium is killed by the fumes as it passes in or out of the nest. For this reason we prefer to place the cyanide in the mouth of the hole during the daytime, for when placed there at night when the wasps are at rest much of its strength has evaporated and is lost before the wasps are active in the morning. There is no danger of being stung if the person destroying the nests walks quietly up to the hole and places the cyanide of potassium carefully in and moves away again quietly without beating at any wasps that may be buzzing about him. We have destroyed hundreds of nests in this way without once getting stung. Cyanide of potassium is a deadly poison, and should only be used by a careful person, nor should it be left about where children could get at it. It is far more effective and expeditious than tar, gunpowder, or any other means for destroying wasp nests." There is not the slightest doubt that the remarkable increase in the number of Fellows is owing to the excellence of the Journal. No society in existence gives so much for the small sum needful to become a Fellow. It is a thoroughly good investment.

**Thompson's Gardener's Assistant.**—With volume VI. this work, in its revised form, concludes, and the editor—Mr. W. Watson, Curator of the Royal Gardens, Kew—must be congratulated on the success of his efforts to make this valuable book as practical as possible to all who are interested in gardening. His assistants are men well known in the world of horticulture, and the illustrations are profuse and excellent. This volume has for a frontispiece a well-reproduced coloured plate of hardy Water Lilies, and two other coloured plates are also given, namely, of Aubergines or Egg-plants (seven varieties) and Anthurium scherzerianum, which we regret to see sandwiched in the important "Calendar for the Fruit and Kitchen Gardens": it seems out of place, but this is a small blemish. The volume deals with the kitchen garden, and the information is sound and practical. There is no better book for a gardener's library than this, and the amateur can learn much from its well-printed and illustrated pages.

## ORCHIDS.

### NOTES FROM CLARE LAWN.

**A**MONG the southern collections of Orchids that of Sir Frederick Wigan, Bart., of Clare Lawn, East Sheen, stands out conspicuously. Southerners are very proud, and justly so, of this collection of Orchids, and of those made by Baron Schröder, Sir Trevor Lawrence, and Mr. R. H. Measures. In all of them the plants are well grown. This collection deservedly ranks among the best. Its excellence is testified to by the numerous certificates gained at the Royal Horticultural Society's fortnightly meetings and by the splendid groups annually exhibited at the Temple Show. A special triumph must be recorded for 1901, as the Sherwood Cup, then offered for the best exhibit of Orchids, was gained by the Clare Lawn plants, arranged in what was perhaps one of the most striking and beautiful groups ever seen. A unique feature in this collection is the Cymbidium house, a lofty structure tastefully built up with walls and pillars of tufa, in pockets of which are huge specimens of Cymbidiums lowianum, giganteum, eburneum, hookerianum, tracyanum, and equally fine plants of such hybrids as eburneo-lowianum and the reverse cross, winnianum, l'Ansoni, and the rare wiganianum. The rockwork is practically covered with Adiantums and Ficus. It is difficult to convey an adequate idea of such a house when the plants are in full bloom. Even now, at this

dull season of the year, the foliage and Ferns render the house attractive, and already numerous stout flower-spikes, peeping between the thick green leaves, give promise of the display to come. Next to the Cymbidium house is a partially-sunk span-roof house devoted chiefly to Phalenopsis, Cypripediums, and Vandas. The culture of Phalenopsis has evidently been thoroughly mastered by Mr. Young, the Orchid grower. Some of the plants have been in their present quarters for the last eighteen years, and have stout leathery foliage, in spite of the winter fogs, which are, unfortunately, but too prevalent in this locality. Vigorous as the plants are, several have been placed in leaf-mould to see if further improvement be not possible. So far the experiment is a success; several spikes were noticed on plants of amabilis, stuartiana, sanderiana, &c. In the same house is a batch of Anectochilus dawsonianus, a picture of health and beauty. They have the protection of a hand-light, but apparently are accorded no special treatment. Eulophiella Elizabethæ also finds a corner in this house, and is luxuriant in growth. A plant of the interesting Bulbophyllum grandiflorum was in bloom, the large flowers attracting notice, though not brilliantly coloured, from their quaint structure and exquisite reticulated markings.

The Cattleya houses contain a comprehensive selection of species. In the largest Cattleya house attention is arrested by the numerous spikes rising from a batch of Lælia anceps. Close inspection proves the majority to be whites, including such varieties as Dawsoni, sanderiana superba, Hillii, alba, Stella, &c. A useful and effective display will doubtless shortly be obtained. The warm house contains a grand lot of Dendrobium formosum giganteum in full flower, the huge white and orange-yellow blossoms being very conspicuous. Dendrobium Phalenopsis schoderianum in flower and bud also adds to the display. These two species, though in different sections, are certainly among the most effective in the genus. Other occupants of the house include well-grown Selenipediums, Vanda batemanniana, a useful batch of Cypripediums, among which is the rare and beautiful Cypripedium Muriel Hollington (C. niveum × C. insignis). It may be mentioned that Cypripediums niveum, concolor, bellatulum, and Godefroyæ are particularly well grown at Clare Lawn, a position being given them to the glass.

An interesting plant, Scuticaria Hadweni, was in flower, carrying seven of its curious greenish yellow, pale yellow, white, and chestnut-blotched blossoms. Scuticarias are seldom met with among present-day Orchids, hence the presence of this old-time favourite in such an up-to-date collection is all the more noteworthy. The cool houses include a number of Masdevallias, chiefly hybrids, varieties of harr yana, and such rare but attractive species as Schlimii, trochilus, reichenbachiana, schoderiana, &c., together with Maxillarias, a few Pleurothallis, including a grand specimen of P. Roezlii. A side stage is devoted entirely to Miltonia vexillaria, among the plants being some exceedingly rare and choice forms.

The Odontoglossums are a particularly healthy looking varied lot of plants, and include several magnificent varieties of Odontoglossum harr yanocrispum, O. Rolfe, O. loochristiense, &c., numerous grand forms of O. crispum, andersonianum, elegans, &c., in addition to a good selection of the types and more common species. A span-roofed house entirely set apart for hybrid Lælias and Cattleyas, Lælio-Cattleyas, and the finest varieties of the species, contains a very choice collection of well grown plants, many being in sheath. A new and most attractive hybrid obtained from Lælia xanthina × Cattleya Rex, at once caught the eye from its distinct yet soft colouring, a tender shade of butter-yellow, lightest on the margins and in the throat, with, on the centre of the lip, a suffused blotch of purplish magenta. This plant was exhibited at the last Royal Horticultural Society's meeting under the name of Lælio-Cattleya Constance Wigan. A second new hybrid also exhibited at the same meeting from this collection was Lælio-Cattleya Iva, raised from

Lælio-Cattleya schilleriana crossed with Lælia longipes. The latter parent, though producing small flowers, has distinctly influenced the present hybrid, as can be seen from the dark fluted lip, and though by no means equalling the first hybrid mentioned is yet a pleasing Orchid, with sufficient charms to merit a place even in this collection, which, large and varied though it is, is in the pink of condition, and reflects great credit on the able Orchid grower.

ARGUTUS.

## SOCIETIES.

### ANCIENT SOCIETY OF YORK FLORISTS.

THE twenty-third Chrysanthemum Show will be held in the Exhibition, York, on the 12th, 13th, and 14th inst. Numerous special prizes are offered, in addition to many valuable ordinary class prizes. Entries close on Wednesday next.

### IPSWICH AND EAST OF ENGLAND HORTICULTURAL SOCIETY.

THE annual show of this society takes place on the 11th and 12th inst., and will be held in the Public Hall, Ipswich. The schedule is a representative one, including numerous prizes for fruits, flowers, and vegetables.

### LISCARD AMATEUR GARDENERS' SOCIETY.

THERE was a good attendance of members, including ladies, on the 15th ult., at the usual monthly meeting held at the Concert Hall, Mr. Jowett presiding. The exhibits were fresh and bright, although not numerous. "Soils and their Treatment" was the subject for consideration, and was in the care of Mr. R. G. Waterman, of Woolton, who in a clear and lucid manner described the requirements of the various soils, the most desirable positions, how best to form good composts, &c. Special attention was directed to the value of manures, how and when they should be given, mulching in many cases being strongly advised. A few notes on rotation concluded this important subject. Many questions of interest were asked concerning special kinds of soils and the most beneficial manures for them. Suitable replies being given, a hearty vote of thanks was tendered to Mr. Waterman for his admirable address.

### BENFIELD HORTICULTURAL ASSOCIATION.

THE winter session of the above society opened on Tuesday evening, the 14th ult., when there was a very good attendance of members. A most interesting paper was read by Mr. Neve, of Lindesham, on "The Renovation of Old Fruit Trees." He dwelt on the importance of keeping old trees in good bearing, and mentioned how he had treated some espalier trees, which, when they first came under his charge, were small, cankered fruit quite unfit for use. These espaliers had their side limbs cut off close to the main stem or trunk, and the main stem itself headed back. The result was a bush tree, which in two or three years after this treatment furnished an ample supply of excellent, good-sized fruit. Mr. Neve advocated this plan in preference to grafting for old trees of good sorts. Other points in connexion with the subject, such as manure, insect pests, head and root-pruning were ably dealt with. He showed photographs of the trees he had manipulated in the manner described. Several questions were asked and a good discussion followed, in which Messrs. Bungay (chairman), Paine (secretary), Howell, Busby, Mason, Gallford, and others took part. A hearty vote of thanks to Mr. Neve for his able paper brought the meeting to a close.

### READING GARDENERS' ASSOCIATION.

MORE than 100 members assembled at the last meeting of the above association to hear Mr. George Gordon, V.M.H., deliver a lecture on "Beautiful Flowering Trees and Shrubs." Time did not suffice to give more than a running commentary on a magnificent series of photographs, shown by the limelight, illustrating some typical specimens of the Double Peach, Almond, Magnolia, Cherry, Plum, Quince, Pear, Thorn, Laburnum, Geniata, Berberis, Lilac, Deutzia, Viburnum, Exochorda, Spiræa, Hydrangea, Horse Chestnut, Catalpa, Wistaria, Azalea, Heath, Andromeda, Rhododendron, &c. The exhibits were exceedingly interesting, the honorary ones were: A basket of Princess of Wales Violets (splendid blooms), retarded Potatoes (illustrating the method of obtaining young Potatoes all the year round), also a dish of fruit of Psidium cattleianum (Guava), suitable for dessert or jelly, by Mr. G. Stanton, Park Place Gardens, Henley-on-Thames; a collection of Sweet Peas by Mr. D. Ager (gardener to Milton Bode, Esq., Caversham). For certificate, a batch of Michaelmas Daisies grown as annuals, seed sown in February, planted out in June, and potted up in September (certificate awarded), by Mr. F. Lever, The Gardens, Hillside, Reading, and a magnificent specimen of Orchid, Odontoglossum grande (certificate awarded), by Mr. W. G. Pigg, The Gardens, Treveroli, Maidenhead. A hearty vote of thanks was accorded to Mr. Gordon, on the proposition of the president, for his interesting lecture. Four new members were elected.

### BECKENHAM HORTICULTURAL SOCIETY.

ON Friday, the 24th ult., at the Church House, a lecture was given by Mr. W. Groves, Grove House, Shortlands, on "The Growth and Cultivation of Mistletoe." Mr. G. N. Hooper, F.R.G.S., occupied the chair. The lecturer stated that the best trees for the cultivation of Mistletoe were the Apple, Willow, Pear, Poplar, Lime, and Oak, but it is

† "The Gardener's Assistant." By Robert Thompson. New edition. Revised and entirely remodelled under the direction and general editorship of William Watson, Curator, Royal Gardens, Kew. Price 8s. London: The Gresham Publishing Company, 34, Southampton Street, Strand.



rarely seen on the last-named, only about six Oak trees in England are known as bearing Mistletoe. The seed thrives best by being sown on the same kind of tree that it was taken from, e.g., if taken from an Apple it is best to sow it on an Apple. The most successful method of sowing is not, as most people imagine, by making an incision in the bark of the tree and placing the seed therein, but simply by placing the seed directly on the branch of young wood, the gummy substance around the seed prevents it from falling or being blown off. The best time for sowing is the month of March, as the seed is then mature, and in a few weeks the seed throws out roots into the bark, and that is the extent of the growth for the first year. The second year it throws out two leaves, and the third year it grows from half an inch to 6 inches, after which the growth is fairly rapid. If by any chance the plant is broken off it will throw up in another part of the branch, thus showing that it is pretty hard to kill. The theory of Professor Darwin that the seed of the Mistletoe must pass through the stomach of a bird before it will germinate was flatly contradicted by Mr. Groves, who by personal observation has proved that a seed having passed through a bird is digested, and not a vestige of it remains. Mr. Groves exhibited some remarkably healthy-looking specimens of the plant from the time they were first sown until sixteen years old, some growing on dead wood. A good discussion followed, in which Messrs. Hooper, Webster, Harman, Price, and Randall took part. Mr. Webster showed some excellent Strawberries and Raspberries. A vote of thanks to the chairman and lecturer closed a very successful meeting.

GEORGE BAXTER.

**LONDON DAHLIA UNION.**

A MEETING of supporters of the above society will take place at the Royal Aquarium, Westminster, on Tuesday next (the first day of the great exhibition of the National Chrysanthemum Society) at four o'clock p.m., in the gallery dining-room. A statement of receipts and expenditure duly audited will be submitted, and a report from the chairman and secretary to the effect that they have arranged with the directors of the London Exhibitions, Limited, Earl's Court, West Kensington, for the exhibition of the London Dahlia Union to be held in the Prince's Hall of the Exhibition on Wednesday and Thursday of the third week in September. The directors of the Earl's Court Exhibition have met the suggestions of the chairman and secretary in the most liberal manner, and it is certain that a very fine exhibition may be anticipated.

**NATIONAL CHRYSANTHEMUM SOCIETY.**

At a meeting of the classification committee, held at the Royal Aquarium on the 7th ult., Mr. Norman Davis was elected chairman of the committee. It was resolved that the following two varieties, Lily Mountford and Hilda Chamberlain, be bracketed as synonymous in the society's list of two much alike Japanese varieties. That the following be bracketed as synonymous in the lists of too much alike early-flowering varieties, Harvest Home and Cranford Beauty. That the following Pompon varieties, Martinmas, La Vierge, and Vesuve, be transferred from the early-flowering Pompon section to the early large-flowered section. It was further resolved that the heading in the society's catalogue, "Japanese Early-flowering Varieties" be altered to "Large-flowering Early Varieties," so as to include all types except Poppoms. That a new class be added to the society's catalogue, now in course of compilation, to embrace market and general decorative varieties other than early-flowering.

**CARDIFF GARDENERS' ASSOCIATION.**

ON Tuesday, the 21st ult., a meeting took place at the Grand Hotel, when Mr. C. E. Collier presided over a large gathering of members. Mr. R. W. Treseder, F.R.H.S., delivered a highly interesting lecture, entitled "Budding, Grafting, and Layering." Several specimens of buds and grafts were brought to the meeting, which the lecturer used by way of making his subject more easily understood. After a lecture of more than an hour's duration, an extremely interesting debate took place. A very cordial vote of thanks was accorded Mr. Treseder for his splendid lecture, to which he suitably responded. Several new vice-presidents and members were enrolled.

**WORCESTER COUNTY COUNCIL FRUIT SHOW.**

THE second exhibition of agricultural and horticultural produce, arranged under the auspices of the Agricultural Sub-Committee of the Worcestershire County Council at the Shire Hall, was opened by Sir T. H. Elliot, secretary to the Board of Agriculture, on the 15th ult., and proved in every way a success. Of course in the horticultural section the bulk of fruit exhibited cannot in any way be compared to that of the exhibition held in 1900, yet the quality was on the whole decidedly good. From an educational point of view this exhibition proved most instructive, because it was the first of the kind in England where the fruit was classified in respect of soils, thus showing definitely the effect of soil upon the flavour, quality, size, and colour. The object of holding the exhibition was chiefly to ascertain under what conditions as to soils, locality, varieties, stocks, cultivation, and treatment the fruit was grown, and this object was fully achieved. Exhibitors were provided with cards on which they were asked to state the details just mentioned, while soils were divided into three kinds, light (including sandy, gravelly, and brashy, two-horse ploughing), medium (including sandy loams, marls, light clay loams, three-horse ploughing), and heavy soils (including strong clay loams, clays and peaty soils, four-horse ploughing). Space necessarily prevents us from giving full details of all the exhibits which received certificates, and we will therefore only mention a few of the most meritorious. Amongst Apples, Worcester Pearmain, although rather under-sized, was well shown by several exhibitors. The

best dish (five specimens) came from off a medium loam, and were exhibited by General Davies, Elmley Castle, near Droitwich. Cox's Orange Pippin was not up to the usual standard, but there were some capital dishes of King of Pippins, the best being shown by Mr. W. Crump, Madresfield; Admiral R. F. Britten, Kenswick, Worcester (medium soil); and Mr. T. Amphlett, Brookhampton, Ombersley, Droitwich (medium soil). Ribston Pippin seems to have failed generally, and in point of fact does not seem to flourish well in Worcestershire, owing to canker. The best dish came from Mr. T. Amphlett, but only a second-class award was given. The class devoted to Blenheim Orange brought forth some really splendid exhibits, Admiral Britten's fruit especially being of large size and very highly coloured, while other meritorious exhibits of this variety were contributed by Mr. H. Gabb, Sandlin, Malvern; Mr. A. N. Ganderton, Rous Lench, Evesham, and Mr. W. Drew, Butt's Farm, Broadway. Warner's King is a variety much favoured by Worcestershire growers, and a large number of dishes of this variety were staged. A very even and remarkably well-grown sample came from Mr. A. N. Ganderton, and also from Admiral Britten. Other exhibitors who showed this variety in capital condition were Mr. W. Drew and Mr. Amos Randle, Heightington, near Bewdley. Peasgood's Nonsuch was very sparsely exhibited, the finest and best coloured coming from Mr. James Best, Holt Castle, Worcester.

In the class for Lane's Prince Albert, Mr. Crump was easily to the fore with splendid fruit, and a very good dish was contributed by Mr. Alexander Slater, Woodfield, Newland, Malvern (stiff soil). A large number of exhibitors staged Dumelew's Seedling in good condition, notably Mr. Crump, Colonel Wheeler, Newnham Court (stiff soil), Mr. W. Drew, and Mr. William Lane, Upton-on-Severn. Bismarck was but poorly represented, Mr. H. Gabb and General Davies staging the best dishes. In the class for any other culinary variety not mentioned in the schedule, Mr. Crump staged some extraordinarily fine fruits of Mère du Ménage, though not very highly coloured. These were grown on a standard tree, which crops fairly well, and the fruit cooks well, but does not keep very late. Mr. Crump also exhibited Lord Derby in very fine condition, the fruits being gathered from a tree on free stock. "A good cropper and cooker, and always comes large," is Mr. Crump's report as to the behaviour of this variety at Madresfield. Mr. J. E. Britten, Old Wood, Tenbury, was given a first-class award for a dish of that good old culinary Apple Forrester, as shown, a dull green russety fruit, rather flat in shape. Pears were not largely exhibited, but Mr. Crump and several other growers exhibited some good dishes. Mr. S. T. Wright (Chiswick) judged the Apples and Pears, and it is needless to add performed his duties to the entire satisfaction of the committee.

**NATIONAL CHRYSANTHEMUM SOCIETY.**

A MEETING of the Floral Committee was held at the Royal Aquarium, Westminster, on Monday last, the 27th ult., when a capital display of novelties was adjudicated upon. Mr. D. B. Crane was in the chair. As usual, Japanese varieties very largely predominated, and among these were blooms of sorts which, it is safe to say, will occupy the attention of all exhibitors. Those to receive awards were:—

*Miss Mildred Ware.*—A very large and handsome Japanese bloom, said to be a seedling from Mme. Carnot. The florets are very long and of medium width, reflexing and drooping in a pleasing way. The colour may be described as a light shade of bronze, slightly tinted rose, and reminds one of nicely coloured blooms of Charles Davis, of which variety it may be considered a much glorified edition. First-class certificate awarded to Mr. T. Bullimore, Canon's Park, Edgware.

*Miss Olive Miller.*—This is one of the most pleasing Japanese novelties of the present season. The flowers are very large, deep, and full, with long and fairly broad florets, which are slightly grooved, they also twist and curl and incurve at the tips, and build up a splendid deep exhibition bloom. The colour is a distinct shade of pale rosy pink on a silvery white ground, and the reverse is also silvery. Later buds give blooms of a deeper colour. First-class certificate awarded to Mr. G. Mileham, The Gardens, Emlyn House, Leatherhead.

*George Penford.*—Another superb Japanese variety, with long and broad strap-like florets of splendid substance, reflexing and curling prettily at the ends. Colour deep rich crimson, with a rich golden reverse. The blooms are large and spreading, and are also very full, and will prove of immense value to exhibitors in succeeding seasons. First-class certificate to Mr. G. Penford, Leigh Park Gardens, Havant.

*Florence Penford.*—This is a fine Japanese incurved bloom. The florets are broad and of splendid substance, twisting and curling and incurving rather tightly, building up a bloom of good size. Colour pale buff, tinted yellow in the centre. First-class certificate also awarded to Mr. Penford.

*Cecil Cutts.*—A large deep incurved bloom, having florets of medium width and pointed, and of good substance. Colour rich yellow. This should prove to be a good back row flower. First-class certificate awarded to Mr. Thomas Mudd, Thorneycroft, Nottingham.

*Ryecroft Beauty.*—A charming decorative Japanese variety, developing beautiful blossoms on long erect footstalks, and of pleasing form. Colour soft pink, tinted gold in the centre. A plant was exhibited to show its habit, and this was not more than 3 feet in height, and it was freely flowered. Commendation granted to Mr. H. J. Jones, Ryecroft Nursery, Lewisham, S.E.

A vote of thanks was accorded to a North Country exhibitor for a bright yellow sport from early-flowering Pompon Mme. Ed. Lefort. The sport is to be distributed under the name of Gladys Gray, and owing to its colour the plant should prove to be an acquisition.

Other good Japanese varieties were:—Harry Greenfield, a lovely crimson, reflexed Japanese flower of even build, and of a spreading character; this is promising. F. S. Vallis

(Calvat), a very large golden yellow Japanese, very similar to G. J. Warren in every respect; Wilfred H. Godfrey, a rich rosy chestnut-crimson, and bright golden reverse, long drooping florets of medium width, pointed and incurving at the tips, describes its form; Mrs. H. Emmerton, an Australian seedling Japanese, colour rich yellow, slightly suffused with pink, having long and even reflexed florets of medium width, building up a large bloom of splendid form, every flower comes well; Henry Perkins, an English-raised Japanese seedling, with long broad strap-like florets, loosely reflexing and making a spreading flower, colour reddish crimson, tinted and slightly suffused yellow, with a golden yellow reverse; Miss Smith, a large spreading flower with chaste characteristics, reminding one of an improved Mutual Friend. The creamy white petals have more substance than those of its prototype.

**PENARTH CHRYSANTHEMUM SHOW.**

WE understand there will be no exhibition of Chrysanthemums at Penarth this year.

**Messrs. John Laing and Sons—Dissolution of partnership.**—The firm of John Laing and Sons, nurserymen, Forest Hill, has been dissolved by mutual consent, and the business will in future be carried on by John Alexander Laing.

**Ulster Horticultural Society.—Postponement of show.**—The Chrysanthemum show has been postponed till the 25th inst., in order to suit their Excellencies the Lord Lieutenant and Countess of Dudley, who have graciously promised to perform the opening ceremony.—J. MacBRIDE, Secretary, 1, Adelaide Street, Belfast.

## ANSWERS TO CORRESPONDENTS.

### RULES FOR CORRESPONDENTS.

**Questions and Answers.**—The Editor intends to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London. Letters on business should be sent to the PUBLISHER. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.

**Name of Plant.**—J. Henshaw.—*Leucadendron argenteum.*

**Names of Fruit.**—H. H. M.—1, Probably malformed fruit of Warner's King; 2, Emperor Alexander, cooking variety only; 3, Landsberger Reinet.

**Muscat Grapes unsatisfactory** (J. S. D.).—Judging from the condition of the fruit and foliage by the sample sent, we are of opinion that the roots of your Vines are in a bad condition, and that it will be found on examination that many of them have perished from one cause or another; hence the inability of the Vine to support and develop a good sound crop of fruit. There is also an indication of scalding or burning of the leaves and berries as well as an attack from red spider. This would be caused by insufficient ventilation during summer and by the condition of the roots. If we are correct in our surmise, we can only suggest that the reason of the root failure is due to one or other of the following causes: Too dry or too wet at the root; a too heavy application of artificial or some other manure; or that the Vines have been carrying too heavy crops in previous years. In any case the border should be examined and the condition of the roots ascertained; it will be found most probably that new soil should be added and the drainage made perfect.

**Exhibiting Grapes** (W. B.).—The double bunch of Alicante Grapes having two separate and distinct stems attached to the lateral is not eligible for exhibition as a single bunch, and would certainly be disqualified by competent judges.

**Salvia virgata** (ROSE DOWNING).—The plant noticed in the mixed border as *Kew* flowering in July last is *Salvia virgata*. It is an European plant, and grows about 2½ feet high. It is of a sub-shrubby character, the branches keeping green for a great portion of the winter, living through the year in places where severe frost is not experienced. The main branches are sturdy, and are produced fairly thickly from the rootstock, side branches are numerous, and on them are borne wrinkled, serrated, Sage-like leaves 2 inches to 3 inches long. The inflorescences are in the form of long, upright, terminal racemes, the flowers being very numerous and purplish in colour. The flowering period extends over several months, and for eight or ten weeks in July and August it forms one of the most showy subjects in the herbaceous border. Its exceptionally good habit and the free-flowering qualities, combined with the fact that it is an easy plant to cultivate if given good garden soil, warrants its being in every herbaceous border. It can be obtained from any one of the many nurserymen who make a speciality of herbaceous plants.



**Iris stylosa seed** (F. H. C.).—The seed of this pretty winter-flowering Iris may be sown any time between this and next February. The soil to use is very sandy loam, or loam with fine peat to about one-third will do quite well. Make the whole very sandy, pass through a fine sieve, and use the rough screenings of the soil above the ordinary drainage. Pans or pots will be best, by reason of uncertain germination, but if you employ a box instead let it be a somewhat substantial one, and char the inner surface before using it, or if you have a large quantity you may sow in a frame in prepared soil. In any case make the soil below the seed-sowing level quite firm and level. Sow on this surface a layer of sand—silver sand for preference—and then scatter the seeds thinly over the surface. Finally, cover with about three-eighths of an inch of fine soil, making it moderately firm. If you wish to quicken germination some portion of the whole may have the benefit of greenhouse treatment; but the warmth given must be slight, and particularly so when the seedlings appear. The ultimate flowering of the seedlings depends entirely on the treatment hereafter, and you cannot do better as the seedlings attain sufficient size than to prick them off into boxes or a frame set apart, with a similar soil to that already noted. With twelve months in such a frame, permanent quarters should be selected and prepared, when the flowering of the most forward should follow in a year or perhaps two years at most.—E. J.

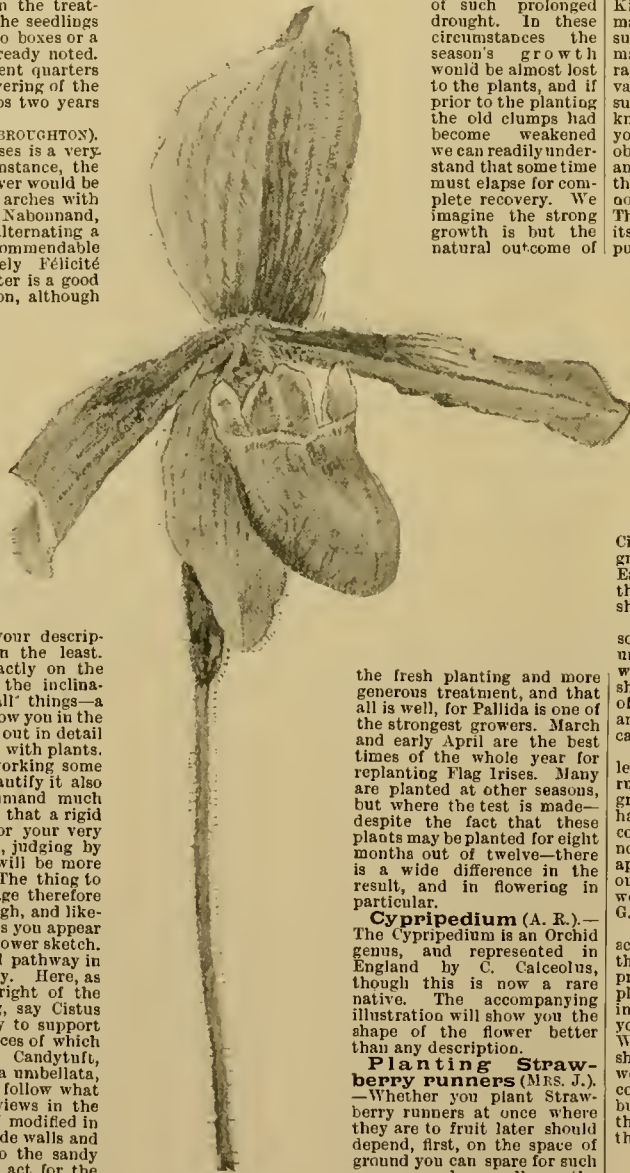
**Roses for arches and pillars** (BELBROUGHTON).—Your selection of Roses for the above purposes is a very good one if you transpose one or two. For instance, the Dawson Rose, Alister Stella Gray, and Ards Rover would be more suitable as pillars, replacing them for the arches with the more vigorous kinds, Euphrosyne, Noella Nabonnand, and Waltham Climber No. 1. Your idea of alternating a summer blooming kind with an autumnal is a commendable one. We should certainly prefer the lovely *Félicité Perpétue* to Paul's Single White, but as this latter is a good autumnal you probably chose it for this reason, although you place it next to another autumnal, Waltham Climber No. 1. We also think you would prefer Queen Alexandra to Psyche, and Electra would be better than The Garland. Mme. Jules Siegfried is one of the overlooked Roses, and is worthy of a place in the smallest collection. Dorothy Perkins and The Garland being practically both summer bloomers, you could well replace the latter with Mme. Jules Siegfried, and thus maintain your arrangement of alternate summer and autumn bloomers. Germaine Trochon is another beautiful kind, but we do not see where you could improve your list by adding it. We should, however, advise you to grow it in bush form, only that when pruning retain its growths from 1½ feet to 2 feet in length.

**Rockery border** (TEMPUS FUGIT).—We consider you have acted for the best in changing the site for the above, as from your description the former one did not appeal to us in the least. In all these matters so much turns not exactly on the soil but upon the material at disposal and the inclination to make it what it should be above all things—a place where plants may be grown. We quite follow you in the lower sketch you give, and if you can carry this out in detail there is every hope of seeing the border clothed with plants. The dry wall should be very helpful, and by working some soil into the crevices it will be possible to beautify it also with plants. If in the end you cannot command much shade for the plants you have the consolation that a rigid selection of sun-loving plants is possible, and for your very sandy soil even desirable. As you appear now, judging by the sketch, to possess a better position this will be more readily convertible into a presentable whole. The thing to avoid, as the soil is so sandy and the drainage therefore excessive, is throwing the mounds of soil too high, and likewise rendering the sloping sides too acute. This you appear to have provided for in the gentler slopes of the lower sketch. If you follow this out, make a miniature rugged pathway in the upper part for convenience as well as utility. Here, as the crown is reached, a larger space on the right of the ascent may be treated as a bed for grouping, say *Cistus ladaniferus*, for example. It may be necessary to support the front side of this bed with stones, the crevices of which may be inlaid with soil and planted with *Candytuft*, *Campanula muralis*, *Corydalis lutea*, or *Achillea umbellata*, all of which have a drooping tendency. If you follow what we suggest in this you have the key to our views in the treatment of the whole, for in the same way, if modified in degree and detail, it will be easy to plant all side walls and sloping pathways with suitable plants. As to the sandy pathways we would not hesitate to let the soil act for the pathway, but if you have a large amount of stone on hand there is no reason why some may not be used, indeed many would prefer it. If you use stone, however, it will be well to so place it that plants may jut out here and there, or proceed from below them or beneath. In this way many *Saxifragas* could be used, also *Campanula pumila*, *C. Erinus*, *Thrift*, and such like, the object being to cover and furnish the bank with living plants. In the larger mounds, where the chief features will be placed, you must provide a good depth of soil for the plants, and firm planting is necessary.

**Seakale blanching** (S. C. G.).—We gather from the description you give of your Seakale that the plants are old, and many sent up flowers which were later cut off. When that is the case it is seldom that crowns fit to produce blanching heads in the winter are formed. In the case of Seakale permanently planted, when the heads have been blanching in the early spring by excluding the light and have been cut, the root-stems should then be cut close off level with the ground. They will then form new crowns, and if these be thinned down to one or two at the most none will bolt off to flower. In that way stout crowns are formed and sound when in the late autumn the leaves fall. Then these crowns can be covered up with

Seakale pots, large plant pots, or drain-pipes, and be also thickly covered with long manure or tree leaves to exclude light and air, or else with mounds of fine coal ashes and some soil over them. In that way good blanching Seakale is obtained in the early spring.

**Irises** (R. D.).—There is not the least need to dig in lime for any of the Flag Irises. We imagine the absence of flowers to be due to the time and method of replanting, and that the plants having now re-established themselves and made new rhizomes will flower quite well in May and June, 1903. Lime is a good corrective in the event of soil being overrich in humus, but in the case of freshly planted subjects it is another matter. These Irises appreciate a rich soil, and it is possible the plants were not over large when planted. If they been twice the time without flowering we would think something was wrong, but having been planted "about fifteen months" infers that the border was planted in July, 1901, not a good time certainly in a year of such prolonged drought. In these circumstances the season's growth would be almost lost to the plants, and if prior to the planting the old clumps had become weakened we can readily understand that some time must elapse for complete recovery. We imagine the strong growth is but the natural outcome of



CYPRIPEDIUM.

the fresh planting and more generous treatment, and that all is well, for *Pallida* is one of the strongest growers. March and early April are the best times of the whole year for replanting Flag Irises. Many are planted at other seasons, but where the test is made—despite the fact that these plants may be planted for eight months out of twelve—there is a wide difference in the result, and in flowering in particular.

**Cypripedium** (A. R.).—The *Cypripedium* is an Orchid genus, and represented in England by *C. Calceolus*, though this is now a rare native. The accompanying illustration will show you the shape of the flower better than any description.

**Planting Strawberry runners** (MRS. J.).—Whether you plant Strawberry runners at once where they are to fruit later should depend, first, on the space of ground you can spare for such purpose, and, secondly, on the present condition of your runners. If these be strong and have every promise of

carrying stout centre crowns during the winter, then if you have plenty of ground to spare plant where to fruit at once. But, even if the plants be so strong, and your garden space is limited, you may not be able to afford them so much space as is needful in planting them in rows 2 feet apart, the plants being 15 inches apart in the rows. Still, even then you may for the first year sow single rows of Spinach, Lettuce, or dwarf Beans amongst the Strawberry runners. On the other hand, if the plants are late runners and not really strong, it is better to plant them out 9 inches apart into a bed for the winter and following summer; then they would make grand plants to put out into a more permanent bed in the autumn.

**Planting fruit bushes** (J. C. C.).—You may plant any description of fruit trees or bushes as soon as you like now, as the leafage is fast ripening and will soon fall. Still, it may be as well to wait until there has been a good rainfall, as the recent cold winds have greatly dried the soil. Probably this year, because wood and leaves are late in maturing, there will not be much transplanting done until

November. Whenever you plant have the ground ready when you order from the nurseryman. Then, as soon as the trees or bushes come to hand, open holes, never deep, and plant as quickly as you can. If the roots have dried in transit, soak them for an hour in a pond or tub of water before planting. In the case of Raspberry canes or suckers plant only those which are well rooted. Do not shorten the canes now; leave that till March, then cut back to within 6 inches of the ground. To secure good permanent plants it is absolutely needful that the first-planted canes and fruit crop be sacrificed.

**Raising seedling Potatoes** (M. S. B.).—As it is now a recognised fact that Potato varieties do in time become weakened in constitution, probably because necessarily propagated annually by means of tubers, it does seem as if the raising of new varieties from seed was indispensable to the perpetuation of our Potato crops. That there are varieties which have endured for fully fifty years there can be no doubt, and some, such as the Ashleaf Kidney, much longer. Yet it does seem as if the great main croppers on which we so much depend for our chief supplies were of necessity the sooner exhausted because so marvellously productive in early years. In any case the raising of good cropping or even of first early good eating varieties still finds ample appreciation. But your hopes for success in this direction must materially depend on the knowledge as to procedure you may possess and the varieties you may have at disposal for such purpose. You should obtain tubers of at least from twelve to twenty so as to have ample variety to work upon, as all may not flower, or if they do, not quite simultaneously. And even then it does not always follow that if they flower you obtain pollen. The greater the tuber crop a plant produces, the less will be its pollen. To get over that difficulty the best plan is to put a few tubers of each variety into 8-inch pots singly, so as to partially starve them. That tends to check tuber production and to increase pollen production. It may be wiser to have the plants tied up to stakes and kept under glass, but they should have ample light and air; otherwise stand them outdoors in a sunny place. When any variety is selected as seed parent remove all flowers but two, and from these carefully remove in an early stage of development the pollen cases, then gather several flowers from the intended pollen variety with the point of a penknife, cause the pollen to fall out on to a sheet of white paper, pick it up with a camel's hair brush, and touch the points of the pistils on the seed flowers and cross-pollination is complete. In any case get the proper varieties first.

**Plants for Dublin** (H. D. R.).—Plant *Romneya*, *Citrus trifoliata*, and *Eucyphia* on south wall; the evergreens and others would succeed with you on open border. Eastern aspects on walls are bad for evergreen shrubs, as the sun shines too suddenly upon them after frost. You should obtain local advice as to planting.

**Grapes shrivelling** (E. C.).—Without knowing something about the health of the vines and the conditions under which they are grown it is difficult to give a trustworthy or helpful answer to your question. The cause of shrivelling sometimes is due to the imperfect fertilisation of the flowers, scorching through inadequate ventilation, and dryness at the root, the latter being the most common cause.

**Hollyhock diseased** (B. LEVETT).—The Hollyhock leaves you sent are undoubtedly attacked by the Hollyhock rust (*Puccinia malvacearum*). Your plants may have been grown from infected seed, as the seed from carpels which have been infected produces diseased seedlings. If you collect and burn all the leaves as they fall your plants should not be attacked next year, but if they are, on the very first appearance of the disease—and you should be on the look-out for it—spray three or four times, with an interval of a week between each spraying, with Bordeaux mixture.—G. S. S.

**Seedling Hippeastrums** (H. W.).—We can scarcely understand your seedling Hippeastrums showing their flower scapes now, unless they are hybrids, in production of which *H. reticulatum* or *H. aulicum* has played a part, as these two species and their hybrids bloom in the autumn or early winter. As far as we can judge by your letter the treatment does not appear to be at fault. We do not think that you can safely rest those that are now showing their flower scapes till January, as the blooms would in all probability go blind, but as you cannot command much heat the better way will be to give them but little water and allow them to come on gradually. In this way you will most likely find some time elapse before the flowers expand.

## TRADE NOTE.

### ROYAL APPOINTMENT.

MESSRS. WILLIAM BULL AND SONS, new plant, seed, and bulb merchants, 536, King's Road, Chelsea, London, S.W., have been honoured with the appointment of florists to His Majesty the King.

### CATALOGUES RECEIVED.

*Fruit Trees and Plants*.—Messrs. H. Cannell and Sons, Swanley, Kent.

*Bulbs, &c.*.—Messrs. C. R. Shilling, Winchfield, Hants.

*Carnations, Picotees, and Auriculas*.—Mr. James Douglas, Edenside, Great Bookham, Surrey; Messrs. Blackmore and Langdon, Tiverton Hill Nursery, Bath.

*Alpine Plants, Hardy Ferns and Orchids, &c.*.—Jardins Correvon, "Floraire," Chêne-Bourg (Geneva).

*New Hybrid Alpine Iris*.—Mr. W. J. Caparne, Rohais, Guernsey.

*American Seeds*.—Messrs. J. M. Thorburn and Co., 36, Cortlandt Street, New York.

*Plants*.—M. V. Lemoine et fils, Rue du Montet, Nancy, France.



# THE GARDEN

No. 1616.—VOL. LXII.]

[NOVEMBER 8, 1902.]

## THE CHRYSANTHEMUM.

AS the Rose is queen of summer flowers, so the Chrysanthemum holds undisputed sway during the late autumn and early winter months. It may be gathered out of doors perhaps later than any other of our border flowers, and when sharp frosts disfigure and destroy its beauty there, one can, with the protection of a greenhouse that is capable of keeping the thermometer some few degrees above freezing point, still enjoy such charming variety of floral beauty as the Chrysanthemum alone at this season can supply. When one sees such a display of Chrysanthemums as that brought together at the National Chrysanthemum Society's exhibition held in the Royal Aquarium on Tuesday, Wednesday, and Thursday last, one is able to realise how vast and rapid has been the improvement effected in the Chrysanthemum during the past few years by workers both at home and abroad, and what a wealth of material the enthusiast and would-be cultivator of this grand autumn flower has to choose from. If particulars of the origin of the varieties of Chrysanthemums shown at this exhibition were available, with whom, we wonder, would rest the honour of being at the top of the poll? We fear that English growers could not rightly claim the privilege; it is probable that the creations of French, American, and Australian raisers would take precedence both in point of numbers and individual beauty.

If, however, we acknowledge that we have yet something to learn from the Continent, the Colonies, and America, with respect to the raising of new varieties, we yield to none in the matter of cultivation. It is safe to say, we think, that nowhere else could such a wonderful exhibition of the Chrysanthemum grower's skill be seen as at the Metropolitan display above referred to. Yet gorgeous as are the colours of the massive and handsome Japanese blooms, varying so astonishingly in form of flower and shape and disposition of petal as almost to make one wonder what a Japanese Chrysanthemum really is, neat and correct with every petal in place as are the incurved flowers, we were much disappointed to find that at this national exhibition of Chrysanthemums, those free-flowering decorative sorts that provide one with a profusion of flowers at a slight cost were so sparsely represented as to require much seeking ere they could be found.

Yet to the amateur enthusiast, who must ever remain by far the largest grower of this, as of every flower, no other section of Chrysanthemums appeals to nearly such an extent. But comparatively few growers can hope to achieve such success as that evidenced by the magnificent blooms shown at the Aquarium. It was refreshing to see the single varieties better represented than usual, and there appears to us to be no reason why they and the other types most generally useful should not be earnestly encouraged.

Why should we not be able to speak of "garden Chrysanthemums" as we do of garden Roses; the beautiful and comparatively recent additions to the latter have revolutionised Rose gardens. The Chrysanthemum is equally as valuable in its sphere as is the Rose, and the possibilities of selection and hybridisation with the idea of producing Chrysanthemums for the garden are unbounded. Early-flowering varieties have been greatly enriched during the past few years by the addition of good novelties, and it is to be hoped that before long we may be able to say the same of late Chrysanthemums. At present, good late varieties are scarce and badly wanted. They are wanted to fill the void which exists in the gardens of most amateurs for some weeks before spring flowers are to be had. Not everyone has either the opportunity or the accommodation for forcing plants to bloom out of their natural season, and to such persons, and they must surely represent the great majority of plant lovers, new and improved late Chrysanthemums would be most heartily welcome.

The National Chrysanthemum Society has, we presume, held its last exhibition in the Royal Aquarium. It is now homeless, and has lost a good friend in the manager of this London theatre of varieties, who, by substantial money awards and in many other ways, even in the face of at one time strong competition, has helped the society and prevented this three day Chrysanthemum feast, held midst the turmoil of shouts and music of a big organ, from migrating elsewhere.

It remains to be seen whether the society, which may be regarded as a pioneer in all things concerning the exhibition Chrysanthemum, will continue to stand firm without the attractions of a variety show, which are an inducement to many living in the country to spend a few days in the Metropolis for the purpose of sight-seeing and meeting friends. We venture to think the National Chrysanthemum

Society will need vigorous management to preserve its influence unless some bright central hall can be discovered, and the funds continue to receive such assistance as the manager of the Royal Aquarium has given ungrudgingly in the past.

The society has had a long and honourable though somewhat chequered career, and we heartily wish it success in its efforts to secure a new home till the Horticultural Hall is an accomplished fact, when we presume its exhibitions, in common with those of all floral societies which have their headquarters in the Metropolis, will be held under the roof of that building.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### *Temperate House.*

ACACIA FRAGRANS, A. linifolia, Cestrum aurantiacum, Chrysanthemum nipponicum, Daphne Daphni, Lavatera maritima var. bicolor, Leonotis dubia, Lonicera etrusca, Pitcairnia ferruginea, Tricyrtis hirta, and Veronica speciosa (several varieties).

#### *Palm House.*

Leea coccinea, Medinilla javanensis, and Sterculia mexicana.

#### *Orchid Houses.*

Acineta Barkeri, Angracum arcuatum, A. vesicatum, Bulbophyllum dayanum, B. recurvum, Calanthe Veitchii, C. vestita var. rubro-oculata, Cattleya bowringiana, C. bowringiana var. violacea, C. labiata, Cirrhopetalum Hookeri, Cochloda vulcanica var. grandiflora, Coelogyne fuliginosa, C. massangeana, C. praecox var. wallichiana, Compactia macropleuron, Cymbidium gammieanum, C. traceyanum, Cypripedium Charlesworthii, C. harrisianum, C. insigne and var. Sanderae, Dendrobium bigibbum, Epidendrum Armstrongii, E. equitans, E. evectum, E. nocturnum, E. vesicatum, Eria barbata, Eulophia pulchra, Grobya galeata, Laelia autumnalis var. atropurpurea, L. Perrinii, Listrostachys (Angracum) Monteirae, Lycaste Skinneri, Masdevallia macrura, M. reichenbachiana, M. veitchiana, Maxillaria crassifolia, M. grandiflora, Neobenthamia gracilis, Odontoglossum constrictum, O. Hallii, Oncidium bracteatum, O. cheiroporum, O. crispum, O. excavatum var. aurosum, O. varicosum, Pleurothallis pulchella, Polystachya leonensis, P. luteola, P. odorata, P. rhodoptera, P. rufinula, P. tessellata, Scaphosepalum ochthodes, Sophronitis cernua, Stanhopea oculata, and Vanda cœrulea.

#### *T Range.*

Echmea fulgens var. discolor, Begonia (various species and varieties), Billbergia Moreli var. paucifolia, Caraguata lingulata, Clerodendron speciosum, C. splendens, Dedalacanthus parvus, Erica conspicua, Hemanthus albos, Hippeastrum vittatum, Justicia calycotricha, J. furcata, Klugia notoniana, Lindenbergia grandiflora, Mesembryanthemum blandum, Pentas carnea, Pinguicula caudata, Pitcairnia karwinskiana, P. Rozellii, Ruellia amœna, Sonerila (several varieties)



*Spathiphyllum Minahassæ*, *Tetranema mexicana*, and *Tupistra nutans*.

#### Greenhouse.

Among other things the following are very noticeable: *Abutilons* in variety, *Begonia coccinea*, *B. echinosepala*, *Calceolaria Burbidgei*, *Chrysanthemums* in variety, *Plumbago capensis*, *Salvia azurea*, *S. splendens* var. *grandiflora*, and *Tecoma Smithii*.

#### Rock Garden and Herbaceous Ground.

*Aster cordifolius*, *A. diffusus*, *A. ericoides*, *A. horizontalis*, *A. tartaricus*, *A. Tradescanti*, *A. turbinellus*, *Baldwinia uniflora*, *Chrysogonum virginianum*, *Lobelia urens*, *Polygala Chamaebuxus* var. *rosea*, and *Primula japonica*.

## OBITUARY.

### C. MARIES.

THROUGH the sudden demise of Mr. C. Maries, which occurred on October 11, at Gwalior (India), horticulture has lost one of its most energetic members, and one who, during the few years which were devoted by him to plant collecting, enriched the European collections with many plants of great value. He was in the employment of Messrs. James Veitch and Sons, when, in 1876, he was entrusted with a mission to explore part of China, Formosa, and Japan, with a view to introducing into Europe some representatives of the splendid vegetation which was known, or was only supposed to exist, in these countries, and especially in the great Ichang Valley. Mr. C. Maries succeeded in sending home and in good condition such plants as *Platyedon grandiflorum* Mariesii, *Rodgersia podophylla*, *Abies Mariesii*, *Styrax Obassia*, *Pteris longifolia* Mariesii, *Hamamelis mollis*, *Hydrangea Hortensia* Mariesii, and the charming *H. Hortensia rosea* which deserves a much more extended cultivation than it receives at present. He also reintroduced the long-lost and very pretty *Caryopteris Mastacanthus* and a host of other plants of equal merit. His success in introducing these plants is all the more remarkable if we take into consideration the difficulties with which collectors had to contend in those days of comparatively slow navigation, and was mainly due to the care, and, I may add, also the ingenuity he displayed in the packing and forwarding of these plants to which he was so devoted. Later he was appointed superintendent of the Gardens of Durbhungah, and ultimately of the magnificent gardens of Gwalior, where he made some very extensive alterations and improvements during the many years that he had them under his direction.

That Mr. C. Maries had well employed his time, and that his exertions were well and duly appreciated, is evident from the fact that, besides being an occasional contributor to the gardening papers and to the *Journal of the Royal Horticultural Society*, he was also a fellow of the *Linnean Society*, and was one of the recipients of a *Victoria Medal of Honour*. To his widow, his son, and his daughter we offer our deepest sympathy.

### JOHN BAXTER.

THE death is announced of Mr. John Baxter, who retired exactly two years ago from the service of Colonel McCall, Daldowie, where he had been gardener during the previous forty-one years, and since his retirement had resided at Uddingston, near Glasgow. For many years Mr. Baxter had been intimately associated with *Violas* as a raiser of the best varieties, and also as a chief exponent of their cultivation. Though latterly *Violas* had been his favourites, other florists' flowers, such as *Dahlias* and *Hollyhocks*, had received much of his attention from about the year 1860 onwards. As a young gardener his time was passed in the famous Keir Gardens, near Stirling, and the Edinburgh



THE LATE MR. JOHN BAXTER.

Botanic Gardens, under McNab, then to the Earl of Kintore's, passing thence to Daldowie at the early age of twenty-three. The late Mr. Baxter had reached the age of sixty-six at the time of his death. An account of Mr. Baxter's career and life work appeared in *THE GARDEN*, December 8, 1900.

### MY GARDEN PATH.

THOU say'st, "Not ugly is the garden of thy choice,  
Yet thou in solitude appearest to rejoice;  
The pathway is so narrow, there is no room for two  
To wander side by side, in converse sweet and true."

In solitude? Oh, no! There's ample room, I think,  
When friends together walk, and arm in arm doth link;  
Oft have I wandered so—and never yet alone—  
The dear one by my side, my arm around her thrown.

Before us or behind a little child can play,  
And sometimes in between us gently make its way;  
While, if on either side we chance the hedge to touch,  
'Tis but the fragrant Roses who in play our shoulders clutch.

The pathway thus for me quite broad enough has been—  
The only road to joy that I have ever seen.  
For formal visitors alone it is not amply wide,  
And I with such should never wish to wander side by side.

E. M. M.

—(From Rückert's "Weisheit des Brahmanen.")

### THE EDITOR'S TABLE.

#### VIOLET PRINCESS OF WALES.

From Mr. Osmond G. Orpen, Hillside, West Bergholt, Colchester, we receive a delightful gathering of *Princess of Wales Violets* grown quite in the open. The flowers are large, most deliciously scented, and a splendid dark violet colour. The footstalks are quite 12 inches long, and the leaves remarkably vigorous. No one who once has seen this *Violet*, now generally recognised as the finest of all, will care to be without it. Such charming flowers from the open in October are very welcome.

#### A SEEDLING ASTER.

Mr. A. R. Upton, the Guildford Hardy Plant Nursery, Millmead, Guildford, in sending a

seedling *Michaelmas Daisy*, writes: "The *Aster* which I am sending you is a seedling from my Compton Heath Nursery, and is now in full bloom. It is about 3 feet high, and a strong grower. So far as I know it is quite a new variety, and such a good colour so late in the year should be valuable. I should be interested to hear your opinion."

[The flowers sent are certainly of a very good distinct colour, quite a pretty blue-purple, and they are very freely produced.]

#### AUTUMN FLOWERS.

Mr. James Page, Knoyle Gardens, Salisbury, writes: "I am sending you a few flowers cut from outside borders, showing the mildness of the season. *Lobelia cardinalis*, *Montbretias*, *Dahlias*, *Marguerites*, *Roses*, &c., are all looking well. The *Rose* is *Mme. Isaac Periere*, both standards and bushes are full of good bloom; in fact, quite equal in colour, form, and scent—if not better—than we get them in June. One standard at the present time is carrying eighteen flowers expanded and expanding and thirty-two buds just opening. I think it is one of the best autumn-flowering *Roses*. I can cut—not one or two, but scores two or three times a week. It does especially well here both as a standard and bush on its own roots."

[A delightful gathering of autumn flowers.]

#### DIPLADENIAS.

Mr. J. Glasheen, The Retreat, Cam, Gloucestershire, sends a few blooms of *Dipladenias* in several lovely colours. These are amongst the most beautiful of stove flowering plants, and no one with a house sufficiently well heated should be without them. Mr. Glasheen says: "It is surprising when one considers their rich colours and their long flowering period that *Dipladenias* are not more popular. In combination with *Allamandas*, *Gloriosas*, *Schubertias*, &c., they have made a brilliant display on the roof of the stove house here since the beginning of July."

#### ASTER "THE GARDEN."

Mr. Amos Perry, Hardy Plant Farm, Winchmore Hill, N., sends us a gathering of *Michaelmas Daisies* in many beautiful sorts. They are striking testimony to the value of *Michaelmas Daisies* as autumn flowers. Mr. Perry says that owing to the cold nights the flowers are not so good as they would otherwise have been. That named in compliment to *THE GARDEN* is a new one, distinct from any other by its remarkable pyramidal habit, the spikes of flowers measuring fully 3 feet in height, the whole plant growing about 5 feet high. The long slender side shoots will render this variety very useful for cutting, and the colour, a good deep purple-blue, is very pleasing.

#### NOVEMBER FLOWERS FROM WORCESTERSHIRE.

Mr. Arthur R. Goodwin, The Elms, Kidderminster, kindly sends a gathering of autumn flowers, picked on November 3 from the open garden. They comprise *Gentiana acaulis*, *Saxifraga Fortunei*, *Erodium pelargonifolium*, *Gypsophila Rozejeka*, with pale pink flowers, and *Chrysanthemums* *George Wermig* and *Mme. la Comtesse Foucher de Cariel*. Mr. Goodwin says "the first-named *Chrysanthemum* is very late this year. The latter is almost the most beautiful outdoor variety I know, habit, foliage, and flowers being perfect. The *Saxifraga* always does well in a fine autumn, and is grown here on a north rockwork in shade."

[The *Chrysanthemum* Mr. Goodwin speaks so highly of is a splendid colour, a rich bronze buff, and shows well what delightful plants these free-flowering *Chrysanthemums* are. No one should be without them, for together with *Michaelmas Daisies* they are responsible for much of the autumn beauty of gardens.]



## NOTES OF THE WEEK.

## FORTHCOMING EVENTS.

## CHRYSANTHEMUM SHOWS.

November 8.—Leicester and Highbury (two days), and Hayes.

November 10.—National Chrysanthemum Society's floral committee meet.

November 11.—Birmingham (three days); Brighton and Sussex (two days); Dulwich (three days); and Oxford.

November 12.—Hull, Brighton and Hove, Folkestone, Sutton, Ipswich, Chester Paxton (two days), York (three days), Winchester, Wandsworth, Banbury, and Buxton.

November 13.—Alsager, Bournemouth, Bristol, Chesterfield, Epsom, King's Lynn, Lewes, Lowestoft, Melton Mowbray, Sittingbourne, Swansea, Tonbridge, Wimbledon, and Wisbech (each two days).

November 14.—Bradford, Stockport, Sheffield, Barnsley, Devon and Exeter, Walthamstow, Tottenham, and Pendleton and District (each two days).

**"Notes on Lilies."**—The editor of the *Gardeners' Chronicle* writes: "With reference to Mr. Peter Barr's complaint under the above heading, on page 308 of *THE GARDEN*, November 1, please see the *Gardeners' Chronicle*, October 13, 1900, page 283, where the letter of which Mr. Barr writes appeared in full."

**Shade-loving perennial Asters.**—As most of the family do best in an open sunny situation it is rather curious to find that the old *Aster longifolius formosus* (renamed at the Aster conference *A. lævigatus*) does best in shade. But so it is. I have repeatedly grown clumps in various positions, but find that those exposed do badly, the foliage growing brown and sparse, and the flowers few and badly formed. But those in shady parts do well and flower freely. These remarks apply equally to *A. vimineus*. A liking for shade is inherent also in *A. cordifolius*, though in a less degree. Still, plants in a north aspect both look and do better than elsewhere.—T. J. WEAVER, *Thirubood*.

**A French Colonial School** has been established at Nantes by the French Government for the culture of economic plants useful to intending planters in the French colonies, and for giving them the necessary instructions regarding their culture. The management of this new school has been given to a young Frenchman, Mr. H. Navel, who was a student at the National Horticultural School at Versailles, also in the Royal Gardens, Kew, and the Jardin Colonial of Vincennes, under the direction of Mr. J. Dybowski. Besides having spent a good deal of his time in London nurseries, he also had the advantage of having during his stay in England filled the post of vice-president of the Société Française d'Horticulture de Londres, to which many of the English nurserymen and English gardeners having a knowledge of the French language belong. This institution is not only working for the benefit of young French gardeners living in this country, but it has also been the means of procuring good positions on the continent for the few English gardeners who have sought its support in that direction. Our best wishes to the new directeur, who informs us that he has a most pleasant recollection of his stay in England.

**Calceolaria Burbidgei.**—The parentage of this *Calceolaria* has puzzled me a good deal, hence I read the note from the raiser on page 281 of *THE GARDEN* with especial interest. Judging by the general appearance of the plant it has always seemed to me that the parents were *Calceolaria Pavonii* and *C. amplexicaulis*, and on this point I see the "Kew Hand List" agrees with me, for the following is recorded: *Calceolaria Burbidgei*, garden hybrid, *amplexicaulis* × *Pavonii*. Mr. Burbidge in the article in question gives *C. fuchsiaefolia* as the seed-bearing parent, which increases the puzzle still more, and the following, taken from *THE GARDEN* of May 4, 1895, when a coloured plate of this *Calceolaria* was given, does not serve to elucidate matters. Concerning the

parentage Mr. Burbidge at that time wrote: "The parent plants were *C. deflexa*, perhaps more generally known as *C. fuchsiaefolia* in gardens. The male parent was the old *C. Pavonii*, named in honour of the traveller Pavon. The only element of doubt as to the above parentage is that a plant or two of the well-known *C. amplexicaulis* was in bloom in an adjacent greenhouse, and it is just possible some insect may have carried its pollen to the stigmas of *C. deflexa*, which I had only touched with pollen from *C. Pavonii*. Personally I should have had no suspicion of this having taken place, all the evidence of the hybrid plant itself bearing in a contrary direction; but when Dr. Johu Macfarlane was making his series of microscopic studies of the minute structure of various hybrid plants at Edinburgh some years ago I sent him *C. Burbidgei*, together with both its parents, and he then thought that he detected signs of *C. amplexicaulis* in the hybrid." At all events we are greatly indebted to Mr. Burbidge for raising such a beautiful winter-flowering plant, though its parentage may be *C. deflexa* × *C. Pavonii*. On this point I have my doubts, and that others are of the same opinion is shown by the "Kew Hand List."—W. T.

**Lachenalias.**—Reading Mr. H. T. Martin's remarks on *Lachenalias*, page 135 of *THE GARDEN*, August 23, I would suggest an addition to his list of names. Driving along the Hartbeest River, Caledon, Cape Colony, my eye was attracted by a patch of brilliant purple-red colour. I was soon out of the cart and up the bank, where, to my extreme delight, I found it was a *Lachenalia* I had never before seen in flower, figured or described, the spike of flower being about 6 inches long, and the height of plant about 9 inches. My pick was soon in the ground, and a good handful gathered and bagged as the prize of two days' work. On returning to Cape Town I was informed it was described in "*Flora Capensis*" under the name *L. rosea*. Anyone who has grown *L. pendula* must feel surprised Mr. Martin should omit it, as it is one of the most distinct of the family. I freely admit there are *Lachenalias* that would only be prized by collectors, such as *L. orchioides* and its many forms. Of whites, *L. contaminata*, *L. orthopetala*, *L. pustulata*, with its blistered-like leaves, and *L. liliflora*; these are really pretty plants, and I recommend them for pot culture, five or more in a pot. *L. glauca* is very distinct, flowers tinged blue, leaves heavily spotted; *L. purpurea cernua*, with blistered-like leaves and beautiful purple and blue flowers; *L. unifolia*, with its one leaf and blue-tipped white flowers, is both distinct and beautiful. I wish Mr. Moore of Glasnevin Botanic Gardens would seriously take up this entire family, and show the flower-loving public how much beauty and real intrinsic interest are lost in neglecting these plants. Our good friend the Rev. John Wilson did much to prevent the family from all but disappearing when he crossed *L. aurea* and *L. luteola* and raised a batch of seedlings with the free-flowering of the latter and the rich yellow of the former. It is curious that *L. luteola* is unknown at the Cape; I suppose, therefore, it must have been selected out of a batch of *L. tricolor*. It has not much claim to a place in the family, but its wonderful adaptation to culture in hanging baskets makes it valuable. At Stevens' auction rooms I once bought two large hanging baskets into which hundreds of bulbs had been planted, and the greenish yellow flowers literally covered the sides, bottom, and top of the baskets. All the *Lachenalias* I have yet met with were growing in good moist sandy loam, generally stony. Mr. Martin's remarks on watering just hit the mark and accord perfectly with the conditions that prevail when the *Lachenalia* is in flower at the Cape. Moist sandy loam, the bulbs just under the soil, but not exposed. As a rule, I found the plants with the base seldom more than 1 inch to 2 inches below the surface. *L. linifolia* grows in pure sand over moisture; I would therefore suggest it might be most successfully grown in pots, standing in saucers of water, resting on pebbles or broken crocks, so that air could get in as well as water and keep the sand sweet.—PETER BARR, V.M.H., *Cape Town*.

**Begonia Froebelii.**—When this *Begonia* was first introduced from Ecuador by Messrs. Froebel, nurserymen of Zurich, now about thirty years ago, autumn and winter-flowering forms were much fewer than they are now, hence this species, which would often flower well on into the autumn, was thought highly of, and for a few years at least was largely grown. Though this *Begonia* forms a tuber, it is not so solid as that produced by the ordinary tuberous-rooted varieties, but often consists of little more than a dense mass of fibrous roots, though sometimes there is a decided tuber. In this *Begonia* both the leaves and flowers spring direct from the root-stock, as the plant does not produce a stem after the manner of the ordinary tuberous-rooted forms. Another distinctive feature is that the leaves are thickly covered with hairs. The flowers of this *Begonia* are of a bright crimson or scarlet, individuals varying considerably in this respect. It has not been employed to any great extent by the hybridist; indeed, for some years after its introduction all attempts at hybridising, as far as I know, resulted in failure, but of late years it has, in conjunction with *B. polypetala*, given us a valuable hybrid form, *Begonia incomparabilis*, which Messrs. Veitch showed so well at the meeting of the Royal Horticultural Society on October 21. It is a bold-growing plant, with large leaves that often nearly hide the pot, and erect, many-flowered scapes of scarlet blossoms. This *Begonia*, which affords a delightful change from the *Socotrana* hybrids, received an award of merit from the Royal Horticultural Society in November, 1895.

**Grafting Clianthus Dampieri.**—I was particularly interested in the note on grafting *Clianthus Dampieri*, page 307, as I have had several opportunities of seeing the plant in the Temperate house at Kew, which was alluded to in the above-named article. It was certainly a grand specimen, which showed well the suitability of *Colutea arborescens* as a stock for it. My interest in it was two-fold, as it is now about thirty-five years since the first grafted plant that ever came under my notice was grown in the south octagon of the same structure, but though it developed into a fine specimen, it was not, as far as my memory serves me, the equal of the recent one. The stock employed was *Swainsona galegifolia*, now I believe known as *S. coronillifolia*. It was a vigorous seedling established in a small pot, and the scion was quite a young seedling of *C. Dampieri*. Two or three were at the same time grafted on *Clianthus puniceus*, but they did not succeed nearly so well as that on the *Swainsona*.—H. P.

**Sweet Violets.**—A pleasant surprise at the Kent Chrysanthemum show was a stand covered with vases, each containing a loose bunch of cut Violets with their leaves, shown, but not for competition, by Messrs. Isaac House and Son of Bristol. As the proverb says, "Everything comes to a good water," and since reading the article on "Sweet Violets, Old and New" in *THE GARDEN*, I hoped some day to see the variety Admiral Avellan, and here was a great bunch of it with large, almost claret-coloured flowers deliciously fragrant. In this interesting collection were two saints, both singles—St. Anne's Pink and St. Helena—being respectively pink and starch blue. The most striking, for the size of the flowers and long stalks, making them useful for bouquets, were *Luxonne* and *La France*. These were much alike, being of a real violet colour. There were all the old favourites, such as *Marie Louise*. I missed seeing the sweet-scented *Semperflorens*, which, I am told, blooms more or less all the year round, for someone had taken such a fancy to the bunch that they had stolen it.—WINIFRED SPURLING.

**Bright-coloured Chrysanthemums.**—The fact of its being "autumn sae pensive in yellow and gray" instinctively made me turn away from the cinnamon-coloured, buff, and other dingy-coloured Chrysanthemums and feast my eyes on the bright pink and yellow flowers at the Kent Chrysanthemum show. Amongst the most beautiful of the Japanese blooms I noticed were Mrs. G. Mileham and Lily Mountford, all of a bright clear pink; Rayonette, with narrow pale pink petals; Miss Mildred Ware, shrimp-



coloured; Matthew Hodgson and H. Weeks, both good reds; and the copper-coloured Pompon Abri de Noel. The yellow Chrysanthemums were all beautiful, the most noticeable being Mrs. Greenfield (golden-yellow Japanese) and Dorothy Gibson (bright yellow reflexed). The baskets of Chrysanthemums were decidedly sombre, those gaining first, second, and third prizes all containing dark red and bronzy yellow flowers; perhaps the competitors were tied to these shades by rule, otherwise a basket filled with white and pink Chrysanthemums would have been much more effective.—WINIFRED SPURLING.

**Wood Anemones.**—The accompanying illustration is from a photograph taken in the woods near Bolton Abbey, Yorkshire, when the Wood Anemones (*A. nemorosa*) were in their full beauty. This charming little spring flower is one of the most beautiful of our wildings, and it is to be regretted that it is not naturalised more extensively in our gardens. Intending planters should not delay, for now is the best time to commence.

**Pear Styrian.**—This Pear is not much grown in the South, but in the North and the Midlands it is a favourite variety. It is also

is very large, flushed with red on the sunny side, and in season as soon as gathered from the trees in October and through November. It is equal to the Verulam or Black Worcester for stewing, but is earlier. Grown on the Quince stock in bush or pyramid form it is a profitable variety, not unlike Uvedale's St. Germain in appearance and size, but much sweeter.—A. C. N.

**Port Elizabeth and East London.** At Port Elizabeth I saw the pink Freesia, but only two flowering bulbs of it. The lower part of one flower was stained orange-yellow, that of the other was clear white. On the veldt the yellow Freesia is abundant, but whether it is the one I sometimes see referred to in the gardening papers as *F. aurea* I cannot say; but, described, your readers may know it. The upper part of the flower is lemon-yellow and the lower part rich orange-yellow. On my official visit I may learn more about the origin of the pink Freesia. The flowers are rather small, the colour is pleasing, and the fragrance rich. East London seems to be the home of *Cyrtanthus*, scarlet, white, and yellow. At one cottage door I saw a large pot full of the scarlet one, a lovely sight, and the same one in

of the varieties: Baldwin, Ribston Pippin, Golden Russet, Gravenstein, Fallawater, Emperor Alexander, North Star, Twenty-ounce Pippin, Gloria Mundi, Blenheim Pippin, King of Pippins, Ben Davies, Wealthy, and Northern Spy. To show the fine quality of the fruit King of Pippins weighed 15oz.; Bietigheimer, 16oz.; Fallawater, 14oz.; and Ribstons varied from 7oz. to 12oz. each, these being only a few sorts taken haphazard. It may be mentioned that the above splendid samples were first exhibited at Kentville, King's County, Canada, and were sent by Sir Frederick Bowden and Mr. L. S. Eaton.—A. B.

**Nertera depressa.**—I have just been looking through the old volumes of THE GARDEN to see if there was any mention of the subject of this note being grown in the open. I find that about twelve years ago a correspondent wrote that he had never known it survive the winter in the open, and that at earlier dates two writers asserted that it could be grown in the open, but apparently did not speak from experience. I was interested because I now have a plant which has been in the open for more than twelve months covered with orange-red berries, a very pretty sight at this season of the year. It is growing on a ledge in front of an upright rock, where it gets but little sun, and has *Shortia galacifolia* on one side and *Ourisia coccinea* on the other. Its tiny light green leaves, rising not more than half an inch from the ground level, are thickly studded with the bright berries, which almost hide the foliage. The flowers are very inconspicuous, being pale green in colour and borne in the axils of the leaves. The berries began to colour in July, and show no signs of falling as yet. I was very doubtful as to its proving hardy, as it is a native of New Zealand, and before it had time to get established the winter was upon us with severe November frosts, a most unusual occurrence in this part of England. However, after looking rather unhappy through the winter it soon picked up when the spring came, and is now spreading freely. It is a charming little plant, that at this season of the year would well repay anyone living in a warm district who planted it in a sheltered nook in the rock garden. It is growing in peat, leaf-mould and sand.—S. W. F., *S. Devon*.

**Arctotis grandis.**—I quite agree with "R. D." in his estimate of this plant. It is a rampant grower, but its flowers, though individually pretty when expanded, are not borne with sufficient freedom to render it a decorative subject in the garden. The branches are also very liable to be snapped off by high winds unless each one is tied to a separate stick, which still further detracts from the plant's appearance. For garden adornment it cannot compare with *Dimorphotheca Ecklonis*, whose flowers are very similar in colour, the petals being white and the centres purple, though these also have the disadvantage of only expanding in the sunlight. On a sunny day, however, a good bush of this plant bearing a couple of hundred or so expanded blossoms is a striking sight. I never allow the *Dimorphotheca* to remain in the border through the winter, but lift and pot, placing it under a verandah, or during sharp frosts in a cold house, but think it might very possibly survive if left out in a southern, wall-backed border. *Arctotis arborescens* I have always lost in the winter, but this year I have two specimens planted in broken stones and grit at the back of a retaining wall over which they hang, and shall be curious to see if their position and the poverty of their rooting medium renders them more hardy. In the Isles of Scilly they form immense bushes, and pass through the winter unharmed.—S. W. F.



WOOD ANEMONES IN THE BOLTON ABBEY WOODS.

known as Keele Hall Beurré, and Mr. Barron in his excellent list of Pears at the great conference of the Royal Horticultural Society describes it as sweet but not rich. Dr. Hogg says it is a most delicious Pear, and I have had it from walls grown on the Scottish border quite equal to Dr. Hogg's description. Few Pears are handsomer; the skin is smooth, clear yellow in colour, with bright crimson on the sunny side; it is one of the most striking fruits I have seen. It does not keep long, in the North its season is October, and it is remarkably prolific. On a wall either south, east, or west it colours well. As a market fruit at the season named, as regards crop and value, it is one of the best, and on that account I have sent this note.—A. C. N.

**Stewing Pear King Edward.**—This is not a new Pear, as some might imagine from its name, and though I do not know its origin it is much more grown in the North than in the South. In the North it is prolific, and its large size is a point of importance. I am unable to go so far as some of my neighbours in the North, who advise its culture for dessert, as the flesh is dry and mealy, but for stewing it is excellent. The fruit

pockets around a pond near enough for the roots to reach the water. Mr. Wormald remarked: "I cannot understand why the people at home do not make more of this bulb, as the summers of England are warmer than the summers in East London." I fancy this may be accounted for by not putting a sufficient number of bulbs in a pot. There does not appear to be any difficulty in their cultivation here. On my return to East London, when visiting the eastern portion of Cape Colony, I may learn more on this subject. On the veldt I often met with *Cyrtanthus obliquus*, but not in flower.—PETER BARR, V.M.H., *Durban, Natal*.

**Canadian fruit in Liverpool.**—Accustomed as we in Liverpool are to seeing the best of imported fruit, the splendid exhibit of twenty-five varieties of Apples from Canada, which have been entrusted to the care of Sir Alfred L. Jones, must astonish even the most sanguine as to what we may yet expect from Canada. The Apples are brilliantly coloured, large, and of great solidity, and Mr. T. Dowd of Moorfields has arranged them in baskets and displayed them to the best advantage, to the great pleasure and interest of thousands of passers-by. The following are some



**Apricot St. Ambrose.**—I find the above Apricot to be a very good variety. I mentioned it in your columns some years ago, but I do not think there is harm in doing so again. It is a good grower, and while not actually free from that bane of Apricot culture, branch paralysis, it is less subject to it than any other variety I have. If not too heavily cropped its fruits finish of a good size and colour.—H. J. C., *Grimston*.

**Eustoma russellianum**, or *Lisianthus russellianus*, better known under the latter name, was exhibited at the Erfurt show last September in the best possible condition, and flowering well, by M. Ernst Benary of Erfurt. The plants excited great curiosity, as they are not much known outside botanical gardens. Perhaps until now they have always been kept too warm. Low propagating houses with plenty of light and a cool temperature will grow them well, the difficulty being to keep them free from the attacks of insect pests.—F. L., *Dresden*.

**Blue Hydrangeas.**—There is more than one means of giving the Hydrangea Otaksa the oft-desired colour of tender blue. Professor Molisch of Prague was the first to give it a scientific trial, and found the chief factor in all colouring compositions to be sulphate of aluminium, but this not being accessible to everyone common alum will do as well. It should be given in the quantity of a third of an ounce to a plant in a 7-inch pot. Somewhat more primitive is the manner of mixing the potting compost with the filings of iron, 1oz. per pot. The Dresden gardeners very often mix the compost with some old peat saved when repotting Azaleas; this answers very well, owing perhaps to a certain amount of oxide of iron and alum in the soil.—F. LEDIEN, *Dresden*.

**New crimson-flowered Japanese Chrysanthemum.**—We are not in the least overdone with Japanese blooms of a crimson colour, though several novelties gained distinction last season which possessed this and allied colours. Mr. Godfrey gave us many excellent new kinds, in which the warmer shades of colour predominated, and this season he has exhibited a very rich and deep crimson flower by the name of Exmouth Rival. At a recent meeting of the National Chrysanthemum Society's floral committee this richly coloured Japanese bloom was commended for its colour, and it certainly well deserved that distinction. It is a pity that so many of the crimson coloured sorts lack the size that all exhibition blooms are expected now to possess, and yet this want of size should not spoil their chance of gaining distinction. Judiciously disposed on an exhibition show-board these somewhat smaller sized blooms are always useful for creating brightness and good effect in the stands, and they are not so much smaller than the others after all. Another crimson of considerable promise has also failed to gain a much hoped-for award. This is an English-raised seedling, and a flower of good form and capital substance. There is room in an exhibitor's collection for both these, and those who feel an interest in them may safely anticipate the production of good blooms of high quality another season. Except for the reverse of the florets the two varieties above mentioned may be regarded as good crimson selfs, although one shade of crimson is quite distinct from the other.—D. B. CRANE.

**Schizostylis coccinea.**—This South African Irid was introduced nearly forty years ago, but for some time after that it was comparatively unknown in gardens. Within the last twenty years, however, it has made great headway in popular favour, and deservedly so, for its showy blossoms are borne at a time when they are particularly appreciated, viz., when summer-flowering subjects are on the wane. In the extreme South of England it must be regarded as thoroughly hardy, and even in the neighbourhood of London it will stand most winters out of doors, but is greatly benefited by being planted in a warm, well-drained border near a hot house; indeed, under such conditions as suit the Belladonna Lily. As this Schizostylis does not flower till autumn, when the weather is often too cold

and wet to allow the flowers to expand properly, it is in most parts of the country more appreciated for flowering under glass, where its bright blossoms make a welcome bit of colour at this season. By some the plants employed for this purpose are planted out during the summer, lifted in early autumn, and potted, while by others they are grown altogether in pots. Whichever course is followed they are greatly benefited by occasional waterings with liquid manure during the growing season. Neat little clumps in pots 5 inches or 6 inches in diameter associate well with the earliest-flowered Roman Hyacinths. In a cut state the spikes of this Schizostylis will remain fresh for a week or so.—T.

**Hybrid Lobelias.**—Those beautiful hybrid Lobelias, obtained principally by the inter-crossing of *L. cardinalis* and *L. syphilitica*, are by no means creations of yesterday, for about twenty years ago Mr. Smith, of Newry, raised many delightful forms, and among some notes taken in the summer or early autumn of 1885 in the nursery of Messrs. Backhouse, of York, reference is made to the great beauty of the hybrid Lobelias there, the following varieties being especially noticed: Amethyst, purplish blue; Challenger, rosy purple; Nizza, beautiful crimson-purple; Queen of Whites, white; Stromboli, purplish magenta; and Sunrise, cerise-scarlet. Of these the variety Nizza is, I see, still catalogued by Mr. Cannell. The spikes referred to by Mr. Campbell as having been shown at the Drill Hall on September 23 were simply superb.—H. P.

**Crinum augustum.**—With reference to the note about this beautiful stove bulbous plant (page 259), I may say that Mr. T. Carling, Dove Park Gardens, Woolton, Liverpool, has a plant now in bloom, and possibly the following particulars may be interesting: Height of stem from pot to base of leaves, 20 inches; length of foliage, 5 feet 3 inches; flower-scape, 3 feet 4 inches high; flower-tube, 7 inches long; number of flowers on spike, 29. The bulb is now in a 12-inch pot, having been repotted only once in twelve years, and that five years ago. No special treatment is given, yet it sends up a magnificent spike about three times each year, which sometimes bears more than thirty flowers. As you see by the flower sent, this Crinum is worthy of more general culture. The flower is imposing, and its perfume very powerful. Mr. Carling would be glad of information as to its propagation, never having succeeded in seeding it, nor is there the slightest sign of any offshoots.—R. G. WATERMAN.

**Rudbeckia fulgida.**—How charming for the garden in autumn is this Cone-flower, yet how seldom is it seen and rarely mentioned in catalogues although introduced so long ago as 1760. Single stemmed plants, which are the best, quickly make dense bushes 3 feet through and 5 feet high. The small golden yellow flowers with an intense black shining disc are produced during the month of October in quantity, and brighten the garden when many of the summer occupants are past their best. The leaves and stems are slightly hairy.—E. M.

**Rudbeckia nitida.**—At the present time no plant in the herbaceous border is making a brighter display than this; growing fully 6 feet high it is quite smothered with its rich yellow flowers with green-brown discs; the latter are quite an inch high. The petals, of fully developed blooms, are thirteen in number, quite three-quarters of an inch wide, some a trifle more. For comparison I have grown *R. californica* and *R. autumn Glory*, but find they are substantially the same. I cannot see the slightest distinction in either. *R. laevigata*, too, I have compared with the subject of this note and fail to find the slightest difference.—E. M.

**Carex scaposa.**—Of the 500 or so different species of *Carex*, comparatively few can be regarded as particularly ornamental, and of this small number the majority are considered only from a foliage point of view. One species, however, *Carex baccans*, which requires the temperature of a stove, is very attractive with its bright red seeds, which retain their position some time before they fall. With regard to *Carex scaposa*—the species under notice—it is

singular, owing to the fact that the inflorescence is most attractive, and in the autumn and early winter months it is for this reason much admired. It forms a bold tuft of Sedge-like leaves from 12 inches to 18 inches long and from 1 inch to 2 inches wide, while the flower-scapes, which well overtop the foliage, bear several flower clusters, which are lightly and pleasingly arranged. The flowers, with their attendant scales, are of a warm pinkish red colour, tipped with white filaments, and a plant in a 6-inch pot carrying several spikes forms such a distinct feature that it would doubtless receive far more attention if better known. This *Carex* was introduced in 1883 from Southern China, and requires the temperature of a warm greenhouse or intermediate structure. It is at present very uncommon, but this would not be the case long if its merits were more generally known.—H. P.

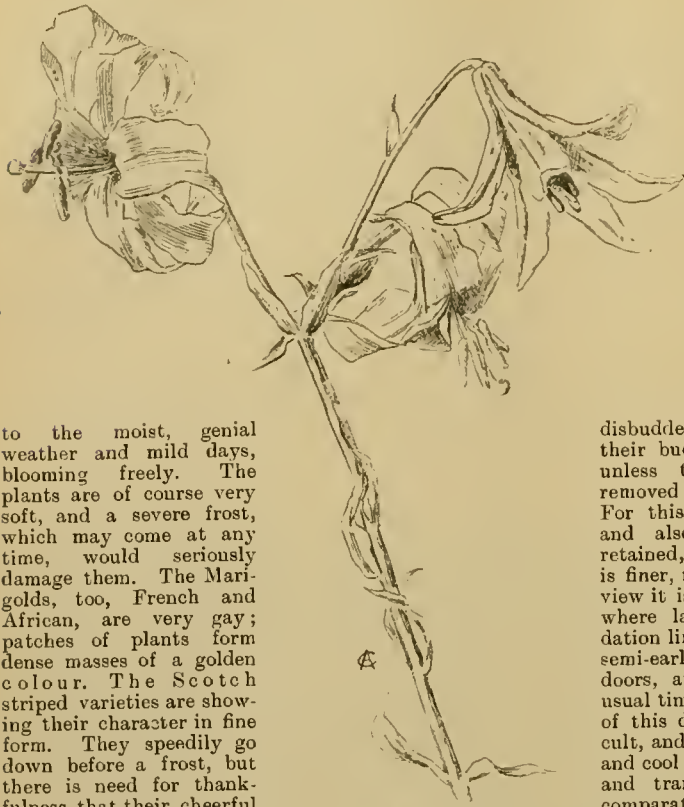
**A few words to fruit correspondents.**—Some time ago you were good enough to adopt a suggestion of mine that correspondents, when speaking of the growing of hardy plants, should also mention the locality. May I now suggest that they should, when speaking of fruits, also mention the soil. In your issue of the 18th ult. much space is devoted to Apple culture, but though it is pointed out that so many persons try the wrong Apple for their particular soil, no attempt in the article on page 260 is made to assist your readers in avoiding that error. It always seems to me that for the same reason the reports by the various colleges on the result of experiments with artificial manures are also useless, for that which is suited to Horsham clay is not suited to my sand.—H. S. [A very good suggestion. Will our correspondents who send articles about fruit kindly note this.—Ed.]

**Californian Plums.**—I wonder how many readers of THE GARDEN interested in fruit culture recently saw in shops or markets Californian Plums in small chip punnets or baskets, margined with tin to keep them together, and each one holding 6lb. of really fine black heavily-bloomed freestone plums. Apart from the almost perfect appearance of the fruit and their excellent eating quality for this time of the year, I could but note the excellence of the packing method shown, an example a few of us may be quick enough to detect, but which, out of all our Plum growers, so few, if indeed any, take to heart. We send our Plums to market in big baskets, tumbling them about very roughly with all the bloom and beauty rubbed off. These Californians had come thousands of miles, yet in their baskets looked as if just gathered from walls. There were three layers in each basket, each of three dozen fruits. Between each layer was tissue paper, and a piece tied over the top. All fruits were on end. I purchased these fine Plums on the 20th ult. at 3½d. per lb.—A. D.

**The edible Passion-flower (Passiflora edulis).**—The edible Passion fruit, illustrated in THE GARDEN of the 18th ult., is known as Roberts's variety, and I believe Mr. Roberts, of The Gardens, Tan-y-bwlch, Merionethshire, was one of the first about here to grow it in quantity. The plants, six in number, were raised from seed six years ago, and have been planted in their present position four years. They now cover the back wall of a late vinery, and when photographed in June were carrying over 800 fruits. The soil is loam and a little lime rubble, but I think any good garden soil will suit them provided that they are assisted with liquid or artificial manure after the fruit is set. We cut them back in the winter and dress with Gishurst or some similar insecticide. If grown in a vinery or any other house with much heat they require artificial fertilisation, but when grown in a greenhouse in a somewhat cooler atmosphere they set freely themselves. Perhaps through being later in flower they get more assistance from the bees. In addition to being used for dessert the fruits are much prized here for jam.—HENRY WORTH, *The Gardens, Wern, Portmadoc*.

**Antirrhinums and Marigolds.**—Plants of these raised from seeds sown in spring and planted out in June and July are now, owing





LILIUM TESTACEUM.

to the moist, genial weather and mild days, blooming freely. The plants are of course very soft, and a severe frost, which may come at any time, would seriously damage them. The Marigolds, too, French and African, are very gay; patches of plants form dense masses of a golden colour. The Scotch striped varieties are showing their character in fine form. They speedily go down before a frost, but there is need for thankfulness that their cheerful golden tints are preserved to us so long. Canterbury Bells, which have seeded, are starting to produce a second crop of flowers, and the spikes of Pentstemons are still remarkably fine.—R. D.

**Lilium testaceum.**—A delightful Lily is this, and one that succeeds well in most gardens. When *Lilium testaceum*, or *L. excelsum*, as it is sometimes called, is in bloom it can be confounded with none other; the colour of its flowers is a pleasing nankeen or buff, against which the brightly coloured anthers stand out conspicuously. The height to which this Lily will grow varies considerably, according to situation and treatment; it will reach a height of 6 feet or more under favourable conditions. The leaves as a rule remain until the flowering season is over, and *L. testaceum* is therefore well adapted for pot culture; as the flowers are pleasantly and not powerfully scented they can be freely used for decorative purposes.—A. C.

## CHRYSANTHEMUMS.

### SEMI-EARLY VARIETIES.

**E**ARLY-FLOWERING Chrysanthemums are increasing in popularity. There is a class, however, which is neither early-flowering nor mid-season, but which is of great value in the interval between the periods of flowering just mentioned. From the close of the first week in October until the first few days of November Chrysanthemums of good and distinct colours and pleasing and varied forms are always in demand, but for some reason at present unexplained little has yet been heard of this group. These semi-early kinds have much to commend them, and when once their cultivation has been taken in hand it is quite safe to predict a successful future for them. In sunny and sheltered positions they succeed remarkably well, but in less favoured situations the same measure of success does not attend one's efforts. It is as plants for pot culture that the semi-early varieties are seen to advantage, as they may be placed under glass with the advent of severe or disagreeable weather and flowered without artificial heat. During the greater part

of October these plants develop their blooms with little or no inconvenience from the atmospheric or climatic conditions prevailing at the time, and so long as the plants are not unduly crowded, and the cool glass structure is freely ventilated, the display is usually as charming as one could well desire.

Unlike the early-flowering border varieties, which appear to do so much better when they are grown without disbudding, these October-flowering varieties give better results when the plants are partially disbudded. Some of the sorts develop their buds in such dense clusters that unless the more crowded ones are removed good results are impossible. For this reason the most prominent and also most promising buds are retained, and the display as a result is finer, no matter from what point of view it is regarded. It is a good plan where labour is scarce and accommodation limited to plant a number of the semi-early kinds in an open position outdoors, and lift them just before the usual time for housing. To place plants of this description in pots is not difficult, and if the weather is fairly moist and cool at the time they may be lifted and transferred to large pots with comparative ease. Grown in the open border all through the summer and early autumn the plants develop into

quite large bushes, so that a few dozen plants treated in the manner just described are quite sufficient to maintain a supply of cut flowers for a long time. There are many inferior kinds in commerce, the colours in some instances being very poor.

The following list, however, includes several varieties which may be regarded as promising novelties. Special attention is drawn to the fact that these plants should be flowered from a terminal bud selection, by which means the colours are better in every way and the proper period of flowering is assured. Damping of the blooms, too, is hardly ever seen in those developed from a terminal bud selection, and their lasting properties are undoubted.

**O. J. Quintus.**—A Japanese flower of exquisite form, flowering at every joint in the long stems; colour, a pleasing soft rose-pink; wonderfully free flowering. Height about 4 feet.

**White Quintus.**—This is a pure white sport from O. J. Quintus, and produces freely elegant sprays of pure white blossoms. In all other respects but colour it is identical with the parent.

**Notaire Groz.**—For some reason this plant has been described as of straggling growth, but such a description is an injustice. The plant is taller than most other varieties, attaining a height of rather more than 4 feet. Long and elegant sprays of charming silvery mauve-pink flowers may be gathered, and these are most useful for vases. The plant comes into flower in early October.

**Bouquet de Feu.**—This is a very pretty little variety, which attains a height of about 18 inches to 2 feet. Its habit is sturdy and branching and yet compact. Each flower is developed on a good foot-stalk, and when the plant is at its best it is indeed a picture. Colour, bronzy terra-cotta; period of flowering, mid-October till mid-November.

**Harmony.**—A novelty distributed last spring. As an October-flowering variety it will be highly esteemed, as its colour, a rich bronzy terra-cotta, is popular. The form of the flowers, too, is pleasing, and the habit of the plant sturdy and bushy. Height about 2½ feet.

**Etoile de Feu.**—This has gained notoriety for the

richness and brilliance of its scarlet-crimson flowers. The flowers are not coarse or too big; as a matter of fact they are ideal for decoration, and should prove very useful for late October and early November displays. The plant is about 3 feet in height, and possesses a habit of growth second to none for cut flower use.

**Godfrey's Pet.**—A charming dwarf and compact plant, literally studded with pretty bright yellow blossoms when partially disbudded. Height not more than 18 inches. On terminal buds it is an October-flowering kind.

**Roi des Precoces.**—Though this plant has been in cultivation for many years, except for market, its culture has been much restricted. For late October use it has an especial value, as its deep rich crimson colour is very effective and the form is pleasing. Habit bushy; height about 3 feet.

**Vivid.**—In this variety we have an ideal decorative plant. Each flower is borne on a useful length of sturdy foot-stalk, and the plant flowers in profusion. Colour, brilliant chestnut, with golden bronze reverse. Height about 4 feet. In flower in late October.

**Mme. la Comtesse Foucher de Cariel.**—For years this variety has been regarded as one of the best for the border in mid-October, and though many good things have been introduced in recent years it still maintains its reputation. It is a mistake to disbud. Colour, orange, with yellow reverse. Height, 2 feet. Habit bushy; very free flowering.

**De la Guille.**—An introduction of 1896, and still one of the best. It is almost unique on account of its colour, which may be described as rich apricot. The flowers are very pretty, and make an effective display when open. Habit bushy and sturdy. Height about 2½ feet. In flower from early October.

**Gladys Roult.**—Another white variety in this brief selection seems to be necessary, and this is quite distinct in form to all others. The flowers are of medium size, and to be seen at their best the plants should be freely disbudded. Height rather less than 3 feet. Habit fairly bushy and sturdy. Period of flowering, latter part of October.

Highgate, N.

D. B. CRANE.

### SOME BORDER CHRYSANTHEMUMS.

A RECENT visit to Earlswood reminded me of the great interest that is now being taken in early Chrysanthemums by a certain section of Chrysanthemum lovers. For those amateurs who have no glass accommodation, and for others who like to brighten up their borders at this season of the year, early Chrysanthemums, but especially those of the Japanese type, afford ample scope for the best decorative effect. Mr. W. Wells has a very extensive collection, and he grows them in an open field away from his nursery where they get the full benefit of the open air. The result is at once effective, and affords means of raising healthy stock. Besides large numbers of already well-known popular sorts might be mentioned several novelties likely to interest admirers of these early sorts.

**Goacher's Crimson** is one of the most useful, its colour is rich, the plant very floriferous, and the blooms of good size; **Rosie** is new, similar in form but rather smaller, colour golden terra-cotta, with a golden centre; **Victor** is another new one, a pure white attractive little Japanese; **Polly**, also a novelty, is a Japanese of good size, colour deep golden yellow, strongly shaded chestnut-crimson; **Winnie** is a very double Japanese, with long florets, deep golden-orange tinted carmine. Another of these new things is **Nellie**, a fine pure golden yellow Japanese with long drooping florets. **Gertie** is not unlike the old reflexed variety **Golden Christini** in form and colour, but has a decided shading of pink. Several others, older kinds, which have often been referred to in the columns of this journal, are this season proving themselves to be well worthy of the commendations they have received.

C. H. P.



## NOTES ON HARDY PLANTS

## ARENARIA BALEARICA.

FOR clothing the cool base of rock-work no plant of low stature is more satisfactory than this little Sandwort. It runs into the joints and over the prominences almost like a coat of thick green paint, so closely does it cling and so clearly does it show the form of the stone beneath, while in early June the hosts of little flowers, large for the size of the plant, deck it with sheets of purest white. It readily sows itself, and in a year's time a chance seed will grow into a pretty tuft.

## ZAUSCHNERIA CALIFORNICA.

COMPLAINTS have frequently been made from the North that this plant is useless for decorative purposes on account of the lateness of its flowering, and an earlier-blooming form, which is to be obtained at certain nurseries, has been recommended as far more useful. I have what I imagine to be the type, and this year paid special attention to its flowering period. The plants are growing in light soil in a narrow bed facing south backed by a wall. The first flower opened on July 22, and through August and September the bed was bright with scarlet blossoms borne with great freedom. Now (October 23) the plants are practically out of bloom, though they still carry some thirty flowers. In the spring I procured a plant of the early-flowering variety. In foliage it much resembled the form I already possessed, which is the one common in this neighbourhood, but the leaves were perhaps slightly more tomentose. The first flowers did not open until October, a fact doubtless due to the smallness of the plant. In colour they were rather brighter than those of the older batch, but as these were at that time less vivid than during the zenith of their display, no reliable comparison was possible. Next summer, by which time the new plant will have become thoroughly established, a definite conclusion as to earliness of flowering should be arrived at. I may add that no season could have been more adverse to the *Zauschneria* than the dull and wet summer which has just ended.

South Devon. S. W. F.

## THE FLOWER GARDEN.

## HARDY FLOWERS FOR CUTTING.

AT this season of the year, when planting is in progress, it may not be out of place to call attention to a few good hardy perennials for cutting in their respective seasons, ranging from March till the beginning of November, especially as there is an ever-increasing demand for them in all gardens, whether large or small. When this is the case, and it is known that the amount of cutting will be prejudicial to the display in the flower garden, I should suggest the advisability of devoting a reserve border or piece of ground to the growth of such plants. A portion of an old slip garden deeply worked and well supplied

with thoroughly decomposed manure will be admirable for the purpose. In such a position there is no necessity for any consideration in the way of effective grouping. Utility is the main object, and so Daffodils, Iris, Montbretias, and dwarf plants may be planted in alternate lines with larger things, such as Phloxes, Asters, and Sunflowers. The object is to economise space and to provide additional room for late flowers. With regard to the furnishing of such reserve ground and the mode of propagation, if special things are wanted they must first be acquired and increased by offsets, cuttings, or division, as the case may be, but the majority may be obtained from seed sown thinly in prepared beds some time in April, and the seedlings afterwards transferred to permanent quarters; or, better still, prick out the seedlings in beds and plant late in autumn. In the case of such seedlings one has naturally to take the bad with the good, but of nearly all plants required really good material for cutting can be obtained if seed is secured from firms who make a speciality of hardy plants. Before offering a list of plants available I should like to note that, although it might doubtless be altered in some cases for the better and also considerably increased, it is just a chronicle of things which have served us well. It may be said that of bulbs

DAFFODILS should be omitted, but I cannot leave them out. Those sorts only, however, should be utilised which will multiply both in offsets and flowers with each succeeding season and hold their ground for many years. Sorts like *Queen Bess*, *Stella superba*, *Barri conspicuus*, *Telamonius plenus*, and the *May-flowering poeticus* will in their respective seasons be found very useful for such work. The last on the list will produce more flowers from a given area than anything else that may be grown. About twenty-five flowers on an average were obtained last year from clumps that are the result of single bulbs planted seven years ago.

ARABIS ALBIDA FL.-PL. is a charming flower, like a miniature Stock, throwing up long spikes in early spring. Very useful for small vases and buttonholes, and quite as easily grown and more vigorous than the well known single form.

DORONICUMS.—With the great wealth of yellow furnished by the Daffodils it may be that the varieties of *Leopard's-bane* are hardly required, but room must be found for the one known as *Harpur Crewe*. Once planted in good soil it will hold its own for several years; lift when the clumps show signs of decadence, select the strongest crowns, and replant in a bit of new soil.

AQUILEGIAS must on no account be omitted. They are always in request, and when well arranged, either alone or with neat foliage, there is a dainty appearance about them hardly equalled by any hardy flower. It is, fortunately, one of those things easily and cheaply grown, seed obtained from a good firm produces charming flowers in great variety. Sow early in April, and if when the seedlings are getting crowded permanent quarters are not ready transfer to prepared beds till the autumn. Very nearly the same remarks with reference to obtaining really good seeds, cultural requirements, and value in a cut form, apply to single

PYRETHRUMS. If a bit of seed is sown annually some really first-rate things are generally obtained, which may be increased to the exclusion of indifferent forms. One cultural note in connexion with both the above two plants may be added. They have a tendency when in permanent quarters to lift themselves above the soil. If this is noticed lift in late autumn and replant firmly at a lower level, with the addition of a bit of good soil about the roots. If single *Pyrethrums* are preferred it is not necessary to have many varieties. There are few better in their respective shades than *Apollo* (pink), *James Kelway* (scarlet), *Mrs. Bateman Brown* (deep crimson), and *Queen of the Whites*.



ARENARIA BALEARICA BY PATH OF SMALL ROCK GARDEN.





YUCCA GLORIOSA IN GOGAR PARK GARDENS,  
CORSTORPHINE, MIDLOTHIAN.

COREOPSIS GRANDIFLORA and GAILLARDIAS may both be treated as advised for Pyrethrums, and will furnish an abundance of flowers from early summer until late in autumn. The whole family of

IRIS are so useful that a selection is somewhat difficult, but for the purpose under consideration perhaps the varieties of Niphium are the best. They are easily grown, will continue to flower well in the same quarters for many years, and are comparatively cheap. A great variety of beautiful shades can now be purchased at prices ranging from 10s. to 20s. per 1,000. A batch of these should if possible be planted on a north border during the season of flowering; cutting is then very considerably prolonged. The present season has shown

MONTBRETIAS in their true character. Hitherto they have been rather quickly over with us, that is, on light, dry borders. This year under cooler conditions and with more moisture they have been in flower nearly three months, and are still good (October 21). From the well-prepared reserve border very fine spikes have been obtained. There are now many varieties of *M. crocosmiflora* in beautiful shades, but the type will answer all requirements for cutting. Lift every third year, select and replant the strongest corms.

PHLOXES I have not yet tried from seed,

having acquired some excellent sorts from cuttings, and no great number of varieties is necessary for the supply of cut blooms, the main consideration being that several distinct shades of first-rate quality are represented. There is an impression that Phloxes will not last well in a cut state, but this is quite erroneous. The old common sorts would not, but large, firm-pipped varieties are first-rate for large vases. Snowdon and Avalanche are good early and late whites, and other good sorts in different shades are La Si  le (pink), Etna (salmon), Croesus (crimson), C  ur de Lion (carmine), and Pharon (lilac). The portion of reserve border where Phloxes and other deep and strong rooting things are planted should receive a heavier manure than that apportioned to Daffodils, Montbretias, and the like.

PENTSTEMONS are much appreciated and valuable for late cutting. Fine spikes are now (the third week in October) available from seed sown early in April. Pentstemons are flowers that come remarkably good from seed, that is if the seed is obtained from a trustworthy source. A peculiarity of this year's seedlings is that all the flowers are white-throated. The small flowered

*P. BARBATUS COCCINEUS* is also very useful, and comes from seed. Some two or three sorts of

ERYNGIUM should be included in all collections for cutting because of their unique appearance. It is, however, hardly necessary to devote space in the reserve ground to them. They will grow on any spare poor border.

SUNFLOWERS, at least some of them, are the better for annual lifting and replanting, choosing strong crowns. If confined to two I should choose *Helianthus Miss Mellish* and *Helianthus nudiflorum*; the last-named is a grand subject for tall vases. With the enormous number of varieties of perennial

ASTERS now in commerce it is somewhat difficult to make a selection of a few that would be best for cutting, and I have grown very few of the newer forms. My favourites are *cordifolius elegans*, *Novi-Belgii* Robert Parker, *vimineus*, and *Tradescantii*.

GYPSOPHILA PANICULATA and STATICE LATIFOLIA must not be omitted, as in their respective seasons they are in ever-increasing demand. Both come well from seed, and it is an interesting characteristic of the Sea Lavender that hardly any two seedlings are the same. They vary not only in colour, in size of individual tiny bloom and panicle, but also in the season when they are at their best—the last a valuable feature. The last flower on my necessarily imperfect list is

LAVENDER, of which a few rows should always be grown. There are few households that do not welcome the late summer gatherings of Lavender. I should like to add that all plants grown for the purpose under consideration should be of vigorous habit and free-flowering, miffy things should not be included.

Claremont.

E. BURRELL.

#### YUCCA GLORIOSA.

MR. A. FINDLAY, the Gardens, Gogar Park, Corstorphine, Midlothian, kindly sends the following note about *Yucca gloriosa*, which, to judge from the accompanying illustration,

evidently thrives well under his careful treatment. "We have three plants similar to the one represented by the enclosed photograph, all of which I propagated fifteen years ago. They have come into flower together, and are now (September 22) a beautiful sight. The flower-spikes are from 5 feet to 6 feet high, each spike carrying about 260 of its pure white blooms."

#### AUTUMN-FLOWERING CROCUSES.

THOUGH these beautiful winter flowers are neglected, still I think there are signs that they are beginning to be more sought for. The winter and autumn kinds flower just when winter is at hand, hence they are of greater worth by comparison. For example, what a veritable storehouse of beauty and interest do these combine, and how suitable they are for the lady amateur who is only lucky enough to possess a cold greenhouse, for in such a structure of course no heat can be turned on. More than this, these Crocuses are just the bulbs for such a house, and any artificial heat spoils them entirely. It is when the observer is brought into this closer touch and all the beauty and refinement is seen to such advantage that the Crocuses of other times appear rough-looking, and possibly a little vulgar, too. Still, there is room for these, and even the sparrows do not object to a taste of them in season. Perhaps the most important item of all is the long flowering season of the species. Starting in early autumn, they maintain an unbroken chain of flowers almost through the winter months and even to early spring. Thus it is that a collection affords unceasing pleasure, and in the manner indicated the flowers could be enjoyed at all times. For the same reason of continued flowering the making of a display at any one season is somewhat difficult from the exhibition standpoint, though a better display could be got together perhaps in the month of October than any other time by the autumn kinds. The best way to exhibit the species of *Crocus* is to grow them in pans; in other words, let the plants be duly prepared for the display, so that visitors may see them in all their beauty and in such a way as to carry conviction at a glance.

Among the few nurserymen who make a speciality of the species of *Crocus* and take material interest in their cultivation are Messrs. Barr and Sons, Covent Garden and Ditton; indeed, just now at the latter place are many beautiful kinds that cannot but delight the visitor. There are also some pretty groups at Kew, sometimes in small beds, at others in the rock garden or just appearing perhaps from amid grassy blades on the lawn. Quite at home and delightful in any position, no plants are more easily cultivated; they delight in any quite open sandy loam, and, what is equally to the point, they are cheap enough to be grown in masses and quite freely. I think no one having taken them in hand will readily give them up. A dozen bulbs may easily be grown in a 6-inch pot or in one of those equally serviceable art pots that are at any moment ready for the transfer to sitting or drawing-room when the plants are in bloom. In this way the Crocuses should appeal to all flower-lovers, the more so because all their beauty is not instantly revealed, and it is a moot point whether the fully-grown bud or the open flower is the more pleasing. Certainly in the latter stage all the rich variation of the finely-coloured anthers is well seen; in some kinds it is quite a feature and a decidedly conspicuous one. The following are some of the most beautiful now in bloom:—

*Crocus speciosus*.—This is showy in colour and bold in form, often reaching 9 inches high. The colour is violet-blue with darker lines, the orange-red anthers being very striking. The segments are fully 2 inches long. An invaluable plant. The flowers, too, emit a powerful fragrance—a fact rarely noted. There are one or two varieties of this species, but it is doubtful if any surpass the type in beauty and intrinsic merit.

*C. pulchellus*.—Palest blue, with azure-blue lines



on both surfaces. The rounded segments are  $1\frac{1}{4}$  inches long, and have a small golden-orange crest at the base; 4 inches high. Very beautiful.

*C. medius*.—Flowers of a violet-purple hue, conspicuous by the exceeding glossy character externally; segments  $1\frac{1}{2}$  inches long, feathered and lined near the base; anthers mahogany-red and very striking; height 5 inches; a showy and handsome kind.

*C. nudiflorus*.—A well-known species of vigorous growth; colour a light violet; the bluntly rounded segments nearly  $1\frac{3}{4}$  inches long, with almost white base; anthers orange-red; 6 inches high.

*C. zonatus*.—This is certainly one of the gems, and no collection should be without it. The segments are  $1\frac{1}{2}$  inches long, palest mauve in colour, delicately lined on both surfaces, while at the base internally a nearly V-shaped light golden crest further distinguishes this dainty kind; height 4 inches.

*C. hadriaticus* and its variety *chrysobelonicus* are both white-flowered, the latter having segments  $1\frac{3}{4}$  inches long and acutely pointed. In both kinds the base is somewhat clouded with yellow, and the anthers are conspicuous; 3 inches high.

*C. asturicus atropurpureus*.—This handsome Crocus is given the preference in this case as being a decided advance, and superior to the type. The satin-like glossy texture of the outer segments is a most effective characteristic, and in the rich purple-violet shade most striking. The flowers are nearly 2 inches long, graduated to a lance-shaped point, and freely lined on the lower half of the flower; anthers orange-red. A sturdy and vigorous kind 4 inches to 5 inches high.

*C. iridiflorus*.—This is a large and handsome Crocus, with flowers of a rich deep purplish blue externally and pale lilac within; a bold and showy species of much merit; height 6 inches.

*C. longiflorus* is a very beautiful species of a pleasing and soft rose-lilac hue. The effect of this when naturalised is very pretty, and it is not only well suited to the purpose, but, being also one of the least expensive—indeed, it is perhaps the cheapest—should be freely used. It is sometimes catalogued as *C. odoratus*; height 5 inches.

*C. cancellatus cilicicus* is a beautiful flower of a pleasing lilac tone. There is also a second variety called *C. c. mazzianicus*, which is white-flowered, with gold anthers; it is, however, less free in flowering, though very pretty; height 4 inches to 5 inches.

These, while not exhausting the list of early and late autumn-flowering kinds, are some of the most noteworthy, providing variety and beauty of a kind not afforded by any other group of hardy flowers. Patches of these peering through a thin carpet of some mossy Saxifrage will beautify the rockery at a time when flowers in that department are rare.

E. JENKINS.

## NOTES FROM SWANSWICK.

In a nursery ground near by there has been for some weeks past a group of *Liatris pycnostachya*, which seems to have attracted a great deal of attention, being visible in all its gaiety from the high road. This is quite a noticeable plant, even among a large collection, and with its long thick bright violet-purple spires almost suggests a small *Eremurus* as far as form goes. It is infinitely handsomer than *Liatris spicata*, but I find the latter exceedingly useful from its prolonged flowering. It has been good ever since June, and still has some flowers on hand, which, as there is a group of three plants in front of a pyramidal

Bay tree, show up well against the dark glossy green. In this soil—rich loam on clay—it grows twice as high as it did on the black soil of the suburb garden from which it came (Newport). It would be interesting to know whether any profit remains to the Rose grower who has sold his plants by auction. Excellent bushes of full size, with an abundance of fibrous roots, of such varieties as Caroline Testout, Magna Charta, La France, and others, at 1s. 6d. and 2s. for six of a sort, do not seem to leave much margin, neither do Crimson Ramblers at 2s. 6d. the half dozen, and standards of various kinds at 4s. 6d. for the same number. I always thought the French Roses a marvel of cheapness, although they are apt to be small above ground, though usually well furnished with fibrous roots; but these auction prices are yet lower, and for larger stuff. The wet summer has prevented Roses about here from ripening much—if at all—so far, and very few look ready to move, the few established in this garden being for the most part still in flower.

The Cactus Dahlias are still very good, and as they are all of the newer sorts, which hold up their flowers well, and have, further, been

have still produced famous crops, and the want of sunshine does not seem to have affected them to any sourness. Taken all round, the Apple is a glorious thing, and king of fruits. Talk of your Mangoes and tropical flavours, your Grape fruits and bready Bananas, and watery Water Melons, an Apple off the dewy ground, perhaps not one from a fruit room shelf, eaten in October sunshine, there and then, is worth the whole vaunted boiling. I think it is perhaps the crispness of this new fallen Apple that gives it its pre-eminence. To feel one's front teeth crunch through its spirited juice and substance is pure, if greedily animal, enjoyment not to be shared by the eater of Peaches or the Pear epicure.

In Somerset we plant Cabbages with the waxing moon, certain that so they will grow and be lusty. If we put them in, or set any flower or fruit tree, when her white ladyship was gibbous in the attenuating scale, our labour would be vain, for that which we planted would but wane with Diana. Just so, when Horse-radish needs, as this engaging plant generally does, to be eradicated, the right time to begin is in the moon's eve of the veil.

Another West Country tradition forbids Lilies of the Valley to be set in a bed under pain of not distant death to the operator. Three years ago I did this thing with my hand that writes, and it is still writing; but the superstition was somewhat borne out, in that loss of health is akin to the worse—or much better—event. As to the waxing and waning, it might be advisable to take a census. M. L. W.



A NEW WHITE HEATHER (*ERICA VULGARIS ALBA* VAR. *GRACILIS*).

## TREES & SHRUBS.

### A NEW WHITE HEATHER.

AT the recent Edinburgh show of the Royal Caledonian Horticultural Society Mr. T. R. Hayes, nurseryman, of Keswick, exhibited a new white Heather (*Erica vulgaris alba* var. *gracilis*), which then

carefully thinned out, they do not really merit the censure cast upon their race by a well-known garden enthusiast, who, in the course of a flying visit here a few weeks ago, discouraged us very much by saying that when you grew these plants and wanted a few blossoms for showing you had to spend your valuable time peering and searching about in yards of foliage to find them. No such quest would be needful here, from the lovely Rosine and deliciously cool-hued Prince of Yellows to the ever-charming, if elderly, Countess of Lonsdale, they are all full of flowers, and as gay with colour as a charity bazaar.

There are many consolations in a heavy soil. Perhaps I shall not feel so gracious towards it next spring; but at present it is appreciated. The small black dogs we grow here riot over the beds without leaving a footmark, and the village cats they scatter are powerless for much evil. One cannot go on the land to dig it in wet weather, it is true; but it is beautiful to see the great clods the last digging turned up melt down, under a downpour, into good surfacing, all friable and rich. Some of the Apple trees, gnarled old things suffering from many years of overgrowth and underfeeding,

received an award of merit. We learn from Mr. Hayes that it has been in flower since August, so that it remains in bloom considerably longer than *Erica vulgaris alba*. The foliage is very similar to that of *E. v. Serlii*, dark green, and of a feathery appearance. Its spreading habit will make it useful to associate with sturdier growing sorts, and no one could wish for a better representative of the Scotch Heather with which to adorn their rock gardens. We understand that His Majesty the King has been pleased to accept plants of this new Heather for the gardens at Sandringham. This new white Heather was exhibited for the first time at the Preston Guild Show on September 5, when it was unanimously awarded a gold medal.

### THE CRABS.

At this season few trees are more attractive than the Crabs with their brightly coloured fruits. Of late years a few very pretty varieties have been added to this class. Not only in the autumn are these trees beautiful, but in May and June, according to the locality, the flowers are lovely. In the far North and on the Scottish border in the early part of June I saw some beautiful trees of the Dartmouth and John Downie Crabs. These





THE WHITE CAMPANULA CARPATICA.

two are great favourites, especially the last-named, and as this flowers late it is not often injured by frost.

Few trees are more welcome for their flowers, and as the Crab will thrive well in most places it is worth extended culture. I recently saw some trees of the Fairy Apple with pretty yellow and red small fruits. They were grown as bushes, not much pruned, and were most effective in that form. They fruit freely, but there can be no doubt that the best method of culture is to grow them as standards with ample head room.

I have mentioned two of the best varieties, and to these should be added the older scarlet Siberian or Cherry Apple, the Orange Crab, a pale golden fruit, also a new form of this variety, the oblong Crab, which is very distinct, and an American introduction, the Transparent, is a very nice yellow fruit and a larger kind; the Transcendent, an oval red and yellow variety, is very telling grown either as a bush or standard. There are some large fruited, such as the Montreal Beauty or Mammoth Crab, also the lesser known Malakova, a large scarlet variety, and there are some newer introductions, such as General Grant and Hesper Rose. Of these I have no experience, but there are no lack of varieties. I am not sure that greater size is needed. I think the small free fruited very pretty for the purpose noted. Messrs. Cheal have a beautiful fruit in their Cheal's Crimson Siberian. This is a charming variety, and quite distinct from the old form; it is a very valuable addition to this class, and bears remarkably well. The fruits are very bright and much valued in the autumn. There is a weeping variety very suitable for the enclosed garden—I write enclosed garden, as where there are cattle they damage the trees badly when in fruit, so that this should be borne in mind when planting. The variety referred to is called Elise Rath; it is very effective grown as a standard on the fringe of shrubberies.

as there are now so many beautiful varieties, seems as imperfectly to be understood as are the merits of its fruits for preserving.—Eo.]

### CAMPANULA CARPATICA.

THIS is one of the best and most easily grown of the Bell-flowers. Its best use in garden borders is at the extreme edge, and if that edge is of stone it also grows willingly in the joints. As a plant for the rock garden it is admirable, and is excellent in walls and the crevices of rough stone steps. The colour of the type is the rather pale lavender-blue of so many of its kind, but the white variety is also indispensable. It is a plant for every garden.

## THE ROSE GARDEN.

### THE PERGOLA IN ENGLISH GARDENS.

By Miss JEKYLL, V.M.H.

IT is only of comparatively late years that we have borrowed the pergola from the gardens of Italy. Borrowed is perhaps, in its complete sense, not quite the right term to use, for borrowing implies returning or repaying, whereas, having borrowed the pergola, we have certainly kept it for our own. Its main use in Italy is as a support for Grape vines and at the same time to give shade to paths. Here we use it, not only for shade, but as an important feature in garden design and for the display of the best plants of rambling growth, whether for beauty of flower or foliage. In the old English gardens of Tudor times there was something

There are other varieties, such as Lady Elgin, Paul's Imperial, a beautiful form, and Quaker Beauty. A few are specially valuable for their spring flowers alone; these are noted for their large blossoms, some being double such as angustifolia and Schiedeckeri. The last has a very dark crimson flower. Kaido is a pale rose, and atro-sanguinea is a beautiful rich colour, much liked for its size. Some of the spring-flowering varieties have scented flowers. The double varieties last a considerable time in bloom, but, on the whole, I do not think they are equal to the fruiting section. In addition, the fruits are valuable when ripe, as they make a splendid jelly, and their value for decoration should not be forgotten. One of the best preserved fruits is the Crab, either alone or mixed with other fruits, such as the Mulberry or Blackberry, or with the Apple it makes a splendid jelly.

G. WYTHES.

[The value of the Crab as an ornamental garden tree, especially

that approached the uses of the pergola in the pleached alleys of Hornbeam or some such tree trained on a framework of laths. But these shaded alleys were slow of growth and wasteful of labour, and did nothing to display the beauty of flowers. Our adaptation of the pergola gives a much quicker and better addition to the delights of the garden, for we have our shady walk, and in addition some of the most charming pictures of flower beauty that the garden can be made to show. It is therefore no wonder that a pergola or something of the kind is now wanted in almost every garden.

Before considering how it is to be planted it may be well to give an idea of the different ways in which it is made. The simplest form of pergola in Italy is made of stout poles guiding and supporting the trunks of the vines, connected across the path by others of less diameter, with a roofing of any long rods laid lengthways along the top. This is repaired from time to time by putting in fresh uprights or other portions in the careless happy-go-lucky way that characterises the methods of domestic and rural economy of the Italian peasant or small proprietor. But often in Italy one sees solid piers of rubble masonry coarsely plastered either round or square in plan, or even marble columns from ancient buildings. These have a more solid wooden beam connecting them in pairs across the path, and stouter stuff running along the length.

For our English gardens we have the choice of various materials for the main structure. If the pergola is to be near enough to the house to be in any sort of designed relation to it, and especially if the house be of some importance, the piers should be of the same material as the house walls—brick or stone as the case may be. Fourteen-inch brick piers laid in cement are excellent and easily made. Such piers may be said to last for ever, and if it is desirable that they should not be red, or whatever may be the normal colour of the brick used, it is easy to colour them in lime-wash to suit any near building. For association with refined brick building bricks are sometimes moulded on purpose of thinner shape, either square or half-round in plan, the latter being for piers that are to show as round columns. Brick, stone or marble, or wooden columns are also used in refined designs. For more ordinary work the piers may be of Oak trunks of a diameter of 8 inches to 10 inches. These if tarred or charred at the butts high enough up to show a charred space of 1 foot above the ground-line, and put into the ground like gate-posts, will last from fifteen to eighteen years, or have about the lifetime of an ordinary field gate-post. A better and more enduring way is to have the posts of Oak 8 inches square, set on squared stones that stand 1 foot out of the ground, with a stout iron dowel let into the foot of the post and the top of the stone. Unless the appearance of the Oak post is desired there is little if anything to choose in point of cost between this and the solid brick pier, as the Oak has to be squared and the plinth shaped and bedded on a concrete foundation. In most places local custom and convenience of obtaining local material will be the best guide in choosing what the pergola is to be made of. Larch posts are nearly as good as Oak, and Larch tops are the best of all materials for the top roofing.

Whatever may be the kind of post or pier, it is important to have them connected by good beams. The beam ties the opposite pairs of posts or piers together across the path. In the case of brick or stone piers it should be of Oak or Larch 7 inches to 8 inches square, not quite



horizontal, but slightly rising in the middle. This is of some importance, as it satisfies the eye with the feeling of strong structure, and is actually of structural utility. It is of course possible to make a pergola of iron with very flat arches, and supporting rods and wires or wire netting for the top; but it is the material least recommended and the one that is the least sympathetic to the plants; indeed in many cases contact with the cold iron is actually harmful. A modification of the continuous pergola is in many cases as good as, or even better than, the more complete kind. This is the series of posts and beams without any connexion in the direction of the length of the path, making a succession of flowering arches; either standing quite clear or only connected by garlands swinging from one pair of piers to the next along the sides of the path, and perhaps light horizontal rails also running lengthwise from pier to pier. This is the best arrangement for Roses, as they have plenty of air and light, and can be more conveniently trained as pillars and arches, while the most free-growing of the Ayrshires and hybrid multiflora ramblers willingly make swinging garlands. Roses are not so good for the complete pergola.

To come to the plants, and to take first the cases in which most shade is desired, with beauty of flower or foliage, the best are certainly Grape Vines, Aristolochia, Virginia Creeper, and Wistaria. They are all, except Virginia Creeper, slow to grow at first, but in four years they will be growing strongly. Vines should be planted a fair size, as large as can be had in pots, or two or three years will be lost at the beginning. Aristolochia, and especially Wistaria, though they grow fast when established, always make a long pause for reflection at the beginning of their new life's journey.

It is therefore a good plan, when a pergola is planted with these as the main things for its future clothing, to plant at intervals several Clematis montana, or even the common but always beautiful C. vitalba. These, especially C. montana, will make a fine show for some years, while the slower plants are making their first growth; and as C. montana has in many soils not a very long lifetime, the best it can do will be over by the time the permanent plants are maturing and wanting the whole space. The Sweet-water Vines of the Chasselas class, known in England as Royal Muscadine, have foliage of excellent form that is beautiful in autumn with its marbling of yellow.

The Parsley or cut-leaved Vine is another desirable kind. Vitis cordata, the sweet-scented Vine, has large wide leaves that give ample shade, and a strong habit of growth, and flowers that in hot sunshine freely give off their delicious scent; while for gorgeous autumn colouring of crimson and yellow the Vine commonly known as Vitis Coignetiae is quite unequalled. There is also

the Claret Vine, whose leaves turn a low-toned red in late summer and autumn.—*Reproduced by permission from the Journal of the Royal Horticultural Society.*

(To be continued.)

## SELECTIONS OF ROSES.

(Continued from page 302.)

### EIGHTEEN HARDEST CLIMBING TEAS, HYBRID TEAS, AND NOISETTES.

FOR somewhat cold districts the following Roses will be found excellent for walls, and most of them can be grown on pillars. Those marked with an asterisk (\*) are good for north or east walls:—



A PERGOLA OF PINK RAMBLER ROSES.

\*Aimée Vibert, white; \*Cheshunt Hybrid, maroon-crimson; Climbing Belle Siebrecht, rich pink; Climbing Captain Christy, flesh; Climbing Souvenir de Wootton, rosy red; Desprez à fleurs jaunes, reddish buff; \*Gloire de Dijon, yellowish salmon; \*Kaiserin Friedrich, lemon, shaded pink; Longworth Rambler, carmine; Mme. Alfred Carrière, flesh-white; Mme. Berard, salmon-rose; Mme. Jules Siegfried, creamy white; Mme. Marie Lavallée, white and rose; \*Pink Rover, pink; Reine Marie Henriette, rosy red; Reine Olga de Wurtemberg, brilliant red; Rêve d'Or, deep yellow; and Waltham Climber, No. 1, bright crimson.

### THIRTY BEST HYBRID PERPETUALS.

From this useful group one may obtain Roses of delicious fragrance, glowing colours, and perfect

form. They are very hardy. When pruning cut back the strong growers to within 1 foot of the base, the weaker growers from 3 inches to 6 inches. Always cut down quite to the ground one or two of the oldest growths each year. This has a tendency to make the plant reproduce itself in a year or two. Sound, hard, one year old wood gives the best blossoms; the weak and pithy shoots should be liberally discarded. The following are all good kinds:—

Alfred Colomb, red; Alfred K. Williams, carmine-red; Beauty of Waltham, light red; Ben Cant, deep crimson; Charles Lefebvre, velvety crimson; Clio, flesh-white; Comte de Raimbault, dark red; Crown Prince, purple; Duke of Edinburgh, vermilion; Dupuy Jamain, cerise; Eugene Furst, velvety crimson; Fisher Holmes, crimson-scarlet; Frau Karl Druschki, snow-white; General Jacqueminot, crimson; Jeannie Dickson, silvery rose; Mme. G. Luizet, pink; Mme. Victor Verdier, light crimson; Margaret Dickson, flesh-white; Marquise de Castellane, rose; Maurice Bernardin, crimson; Merveille de Lyon, white, shaded pink; Mrs. John Laing, soft pink; Mrs. Sharran Crawford, rosy pink; Pride of Waltham, flesh; Prince Arthur, deep crimson; Prince C. de Rohan, maroon; Rosslyn, flesh; Suzanne Marie Rodocanachi, cerise; Ulrich Brunner, cherry-red; and Victor Hugo, velvety crimson.

### TWENTY-FOUR BEST PERGOLA ROSES.

Fast-growing Roses are in this case most appropriate. With few exceptions they are summer-flowering only. If autumn flowers be desired, plant some of the Teas and Noisettes in conjunction with the summer kinds. These latter need not be so vigorous, for if the supporting pillars were clothed with blossom in autumn a lovely effect would be obtained. Those kinds marked with an asterisk (\*) should only be planted if the aspect is fairly sheltered.

Aglaia, yellowish white; Prince Vibert, white; Bennett's Seedling, white; \*Claire Jacquier, orange; Crimson Rambler, crimson; Dorothy Perkins, pink; Euphrosine, bluish-pink; Electra, yellowish white; Félicité Perpétue, white; Flora, pink; Gloire de Dijon, cream; Helene, violet; Jersey Beauty, lemon-white; Mme. Alfred Carrière, creamy white; Noella Nabonnand, velvety crimson; Paul's Carmine Pillar, carmine; Queen Alexandra, rosy pink; Reine Olga de Wurtemberg, red; \*Reve d'Or, apricot; Ruby Queen, ruby-red; Ruga, flesh; Thalia, white; The Garland, buff; wichuriana rubra, red.

### TWELVE BEST POLYANTHA ROSES.

These pretty little gems are very useful for bedding, or for potting up to grow on for conservatory decoration. Some of them are really as strong as Tea Roses, for instance Perle d'Or, but by hard pruning and slightly tying down they answer well for the purpose first named. They also make delightful low hedges.

Anna Marie de Montravel, white; Cécile Brunner, blush; Eugénie Lamesch, yellow; Gloire des Polyantha, deep rose; Katherina Zeimet, white; Léonie Lamesch, coppery red; Mme. E. A. Nolte, chamois; Mignonette, pink; Perle des Rouges, crimson; Perle d'Or, nankeen; Petit Constant, reddish orange; Schneewittchen, creamy white.

### TWELVE BEST RUGOSA ROSES.

This interesting group has come much to the front lately, and they deserve greater popularity. The following dozen are all first-rate:—



Alba, white, single; Atropurpurea, purple; Belle Poitevine, rose; Blanc double de Courbet, snow white; Chedane Guinoisseau, satin rose; Conrad F. Meyer, silvery rose; Fimbriata, rosy pink; Mme. Charles F. Worth, carmine; Mme. G. Bruant, white; Mercedes, flesh pink; Mrs. Anthony Waterer, crimson; Rubra, rosy red.

#### SIX BEST MOSS ROSES.

No garden is complete without a Moss Rose. Far too many worthless kinds have been sent out. We want a few distinct varieties. The following six are all good:—

Blanche Moreau, paper white; Common, pink; Comtesse Murinais, bluish white; Crested, pink; Little Gem, rose; White Bath, pure white.

#### TWENTY-FOUR BEST HYBRID TEA ROSES.

Excepting that they produce a continuous mass of blossom, there are many individuals who would not care for the small-flowered kinds, such as Camoens, Marquise de Salisbury, &c., that form a large proportion of this popular group. In the following selection of twenty-four such kinds as are named above are omitted, and only those given that yield fine individual flowers, but which are none the less beautiful as garden Roses. They are as follows:—

Antoine Rivoire, rosy flesh; Augustine Guinoisseau, white, tinted rose; Bessie Brown, creamy white; Captain Christy, delicate pink; Caroline Testout, salmon-pink; Clara Watson, white, tinted flesh; Gloire Lyonnaise, pale lemon; Grace Darling, cream and pink; Kaiserin Augusta Victoria, cream, shaded lemon; Killarney, flesh, shaded

white; La France, silvery rose; Liberty, velvety crimson; Mme. Abel Chatenay, carmine-rose; Mme. Cadeau Ramey, flesh and yellow; Mme. Eugénie Bouillet, salmon and saffron; Mme. Jules Grolez, silvery rose; Mme. Ravary, golden yellow; Marquise Litta, carmine and vermilion; Mildred Grant, ivory-white, flushed pink; Mrs. W. J. Grant, rosy pink; Souv. de Mme. Eugène Verdier, creamy white; Souv. du Président Carnot, rosy flesh; Viscountess Folkestone, creamy pink; White Lady, creamy white.

## THE FRUIT GARDEN.

### FRUIT TREES IN POTS.

#### HINTS FOR AMATEURS.

THIS branch of fruit growing under glass appeals with greater force to the amateur lover of fruit culture than does any other aspect of this interesting art. By this method we perforce come into familiar and personal contact with the requirements of our fruit trees—talk to them, as it were, face to face. There is nothing hidden from our view—the roots even are familiar to us. In the autumn, some time during the month of October, every plant should be repotted, after which all we have to do is to place them out of doors and protect the roots from extreme cold and wet until the time comes round to have them again in the orchard house. This will be about the middle of January. As regards the orchard house itself there should be nothing pretentious or expensive about it, simply a plain span-roofed house resting on side walls 4 feet high, rising to 12 feet in the centre, and of a length and width to satisfy the requirements of the grower. No expensive fittings in the way of shelves, &c., are necessary, simply an ash-covered bottom to stand the pots upon and a single row of 4-inch hot water pipes in case of frost or extreme cold. The idea should be to produce an atmosphere as similar as possible to the climate of France, as Mr. Rivers of Sawbridgeworth so forcibly stated in his valuable essay on "Orchard-house Fruit Trees" given before the members of the Horticultural Club a short time since, and which essay will be published in due time in the *Journal of the Royal Horticultural Society*.

As a pleasant and interesting recreation for the business or professional man the culture of fruit trees in

pots is not to be ignored. When the trees are introduced under glass, say early in January, they require little attention or labour until they come into bloom a month or six weeks later, and the work exacted even then is of a light and pleasant nature. It only really amounts to watching the blossoms develop and helping to fertilise them by applying the pollen from the anthers to the stigma by means of a soft brush or rabbit's tail in the middle of the day when the flowers are dry. The next process is that of disbudding the shoots, leaving only sufficient to supply the necessary growth for next year's crop. The next work to engage the grower's attention will be to stop these shoots after they have formed five or six leaves by pinching out the centre. Afterwards serve all lateral growths, which will as a consequence result in the same way until growth has ceased. Another pleasant duty will be to thin the fruits to a moderate quantity; no greater mistake can be committed than to allow pot trees to carry too heavy a crop. The crowning pleasure of all will be to watch the fruits swell and grow to maturity.

Hardy fruit such as is grown in orchard houses, namely, Pears, the best dessert Apples, Plums, Apricots, Peaches, Nectarines, and Cherries, may, we know, be well grown out of doors, but there is no comparison between the quality of the two, as might easily be noticed in the exhibits at the great show of the Royal Horticultural Society at the Crystal Palace and other exhibitions. Additional details of culture the amateur will have the pleasure of giving attention to will be watering, ventilation, and the prevention or extermination of insect enemies. As regards the first little will be required until the trees come into leaf, and the tapping of the pot with a small wooden mallet will soon inform the cultivator whether the tree requires water or not. If the sound is hollow then water is required, and must be given in sufficient quantity to saturate the soil thoroughly, and alternate applications should consist of weak manure water from the stable yard or cow shed or of some well-approved artificial stimulant. As regards ventilation one should endeavour to obtain a buoyant warm atmosphere with, at the same time, a free circulation of air—a close and stagnant atmosphere is always inimical to the welfare of orchard house trees. With reference to protecting the trees from the attacks of insects one should remember that prevention is better than cure. To prevent the black or green fly from obtaining a hold when the trees come into flower and leaf fumigate with XL All in January when the buds are dormant, afterwards when the fruit is set little or no trouble should be experienced from these pests. Top-dressing the pot trees must have attention as soon as young roots appear on the surface of the soil, and this practice should be repeated from time to time until the fruits are fully developed. A good compost consists of loam and horse manure in equal proportions, with an addition of a little bone dust. The accompanying illustrations are from trees grown by Messrs. Thomas Rivers and Son of Sawbridgeworth, to whom is due the credit of originating and maintaining an interest in the culture of fruit trees in pots, not only by the splendid examples exhibited by them at the Temple and other shows all over the kingdom, but also by the practical demonstration on an extensive scale in their nurseries at Sawbridgeworth. OWEN THOMAS.

#### THE APRICOT.

WHEN one considers that the Apricot has been grown in this country for nearly four hundred



AN UNUSUALLY FINE TREE OF RIVERS' EARLY CHERRY IN THE SAWBRIDGEWORTH NURSERIES.





PEACH THOMAS RIVERS (ONE OF THE BEST OF RECENTLY INTRODUCED VARIETIES).

years, having been introduced into Britain from Italy by Wolf, gardener to King Henry VIII., in 1524, it seems incredible that the merits of the fruit, especially as an article of commerce, have not been more fully recognised and its great possibilities in this direction developed. English grown Apricots, if delivered in good condition, realise in the market at least 25 per cent. more than do the French ones, yet as an article of commercial value this fruit has received scarcely any attention. As one item that goes to make up the importance of the many minor industries associated with the land in this country, I am convinced the Apricot is deserving of more serious consideration. It must be conceded that to grow it to perfection a wall with a warm aspect is necessary, and where walls are non-existent I should certainly not recommend expensive brick ones to be built for this purpose, but what I would recommend to those who wish to make money by their gardens is to plant an Apricot tree against every available inch of warm wall surface they may have, whether the wall of the dwelling-house or the walls of surrounding buildings. As bearing on this subject I may say that it has been proved beyond doubt, and the fact is now generally admitted, that in the south of England there are miles and miles of garden walls planted with certain varieties of Pears which would succeed much better in open quarters than against warm walls. The hardiest variety of the Apricot, Breda, will succeed well as a bush or standard in sheltered positions in the open garden in the south of England,

The Apricot will succeed in any ordinary well cultivated garden soil; preference should be given to that of a holding rather than of a light nature. As all know who have had much to do with the culture of the Apricot, the greatest trouble the grower has to contend with is the unfortunate constitutional weakness it is subject to of losing many of its main branches, often in a most unaccountable way. This, unfortunately, is a trouble for which no remedy has yet been found, neither so far as I know has any satisfactory and conclusive reason been given as to the cause of the mischief. Many attribute it to injury to the bark by bruising with the hammer at nailing time, or to an accidental cut with the knife, or from severe autumn frosts.

In nine cases out of

ten it is the strongest and most gross growing branches which first succumb, and this fact, to my mind, clearly points to the remedy.

The Apricot is said to be a native of Armenia, and, like the Peach, loves all the natural heat and light we can give it; therefore when possible it should be planted against walls facing south, south-east, or south-west, and even on a west wall it will prove satisfactory. On a wall with an eastern aspect it will not thrive well, there it is very liable to suffer from the effects of spring frost when in bloom. The Apricot also loves a warm soil, and it goes without saying that the border in which it is planted must be well drained, and the nature of the soil not too heavy and close. Where this is the case such material as old brick and mortar rubble, road scrapings, leaf-mould, &c., should be freely mixed with it.

Gross shoots are produced by gross roots, therefore careful root pruning must be resorted to for the first few years; indeed, until such time as the tree is able regularly to carry heavy crops of fruit, thereby effectually preventing these gross growths. If one can prevent coarse growth for four or five years, until the tree has reached a fruitful size, much will have been done to secure immunity from this trouble. The summer treatment of the Apricot does not occasion much labour, especially if disbudding has been carefully attended to, for when heavily cropped the growth of foliage is not great, and what we have to do is to stop the lateral shoots at the sixth or seventh leaf and to tie in or nail the terminal shoots. These, so long as there is any portion of wall to furnish, should be laid in without any shortening whatever. The Apricot is the earliest of our hardy fruit trees to blossom, the flowers usually opening in March or even the end of February. It is very necessary therefore to protect them if one wishes to secure a full crop of fruit. Where the usual coping of board or glass exists, with tiffany blinds to roll down in front of the trees, no better precaution could be had. In the absence of this arrangement, however, fish nets if suspended, of double or treble thickness, in front of the trees will answer well.

If fine well developed fruit for dessert is the object thinning must be carried out with a free hand,



NECTARINE VICTORIA (ONE OF THE BEST LATE VARIETIES) AS A POT TREE.



for the Apricot as a rule sets its fruit freely. A healthy Apricot tree is as capable of bearing a heavy crop of fruit without injury as any hardy fruit tree we have. Thinning the fruit should be performed at two or three different times; the first ones should be removed soon after they are set, then simply taking off the smallest. Go over the trees again when the fruit has reached the size of Hazel Nuts and in about a fortnight's time they should be finally thinned. The quantity left for each tree to carry must be a matter for the experience of the cultivator to decide.

A. P. H.

### CURIOUS CYCLAMEN FLOWER.

NEARLY all kinds of flowers at times show a tendency to "sport," and Cyclamens are no exception to the rule, but this tendency is not so common with them as it is with many other flowers. Not having seen the flower of which a figure is given I cannot say positively what has taken place, but it appears to me that it is an example of what botanists call "petalody of the stamens," that is to say, the stamens have become or tried to become petals; this is the case with all truly double blossoms, the stamens have turned into petals. In the present instance, if my suggestion is the right one, the abnormal stamens have assumed the form of petals of a Japanese Chrysanthemum, twisted round the base of the normal petals. This is a very curious monstrosity, but one that it would not be desirable to perpetuate.

G. S. S.

### CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE NATIONAL CHRYSANTHEMUM SOCIETY.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have just been looking through the schedule of prizes of the National Chrysanthemum Society for 1902, and I find that five members of the executive committee are the paid judges at the exhibitions of the society; and of this number three of them are the principal officers of the society—men who as members of the show committee are supposed to be intimate with the names of the exhibitors and the classes in which they exhibit; and as members of the show committee they, I imagine, have the direction of the placing of the various exhibits. More than this—I also perceive that the three principal officers who are judges are also members of the arbitration committee, whose duty it is to deal with any protest as to the awards of the judges, so they may have to consider protests made in reference to their own awards. By referring to the schedule of prizes for 1901 I find that eight members of the committee were judges in that year, so there is reason to hope that the proper but unsuccessful attempt made at the last general meeting to so alter the rule of the society as to the election of judges so as to disqualify members of the committee from acting in that capacity—an alteration which the *Gardeners' Chronicle* states to be both just and proper—has had some good effect, as seen in the reduction of the number of judges in the present year taken from the committee.

The practice of selecting to make awards those who administer the affairs of the society is so opposed to universal practice and liable to be adversely criticised that I am astonished so influential a society, which I have heard claims to be the foremost special floricultural society in the kingdom, sets such a bad example to its many affiliated

societies. If all the men capable of judging Chrysanthemums, &c., were included in the committee there would be some excuse for this state of affairs. So far from this, there are about the country many men who in addition to possessing the highest qualifications as judges, are also warm supporters of the society, but these receive no invitation though in not a few cases their services are in demand as judges elsewhere.

If anyone will turn to the back page of the third leaf of the schedule of prizes, they will see set forth the composition of the schedule revision sub-committee who have the nomination of the judges; four of the members of that committee are judges and so nominate themselves. If any six members of that committee will agree among themselves to nominate and vote for each other and no other candidate, taking care to be present at the meeting when the nominations are made, they are certain to be elected, as I am informed that the executive committee who make the final selection invariably accept these self-made nominations. The sooner the members remove this state of things the better



A CURIOUS CYCLAMEN FLOWER.

for the society, which just now that it has to seek a new home needs all the support it can obtain.

A COUNTRY MEMBER.

### PLUMS AND CHERRIES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I would like to ask those readers of THE GARDEN who have had some practical experience in the following subjects: Is it possible to grow successfully stone fruit trees in pots in a vinery, started into growth on the 1st of February? The house is a span about 20 feet wide. The Vines could be trained 10 feet apart vertically. This distance apart would no doubt give plenty of light for the fruit growing underneath, but the temperature to suit all subjects through their various stages of growth is what I am in doubt about. Plums and Cherries are the fruits we would like to grow if they could be grown satisfactorily under the above conditions, but we would not attempt it if there were any doubts about the plan succeeding. If the scheme is likely to be

successful with ordinary care and intelligence perhaps some grower will give me a list of about twelve good dessert sorts of Plums suitable for pot culture, and about six sorts of Cherries, with details of management, including top-dressing, repotting, &c.

J. E.

[The subject of our correspondent's enquiry is one of great and recurring interest to fruit growers. The desire to grow a few fruit trees in pots in vineries and other houses occupied by permanent Vines, Peach trees, &c., has been a source of perplexity to many minds for years. The question asked by our correspondent, namely, "Is it possible to grow successfully stone fruits in pots in a vinery started into growth on the 1st of February?" may, we think, be answered in more ways than one, and the answer will depend very much what is meant by "successfully." If the highest success attainable under the best and most favourable conditions of growth is meant, we say at once, and emphatically, that it is not possible. But if the grower should be satisfied with moderate success as regards yield of crop and quality of fruit in, say, three seasons out of five,

he may indulge in the hobby with a prospect of this qualified success being obtained. In such a case his trees should be placed in the vinery the first week in January, the house being still kept cool and airy. The atmosphere of the vinery, although cool, would be warmer than the air outside, and would prepare the trees to expand their bloom with the little extra heat applied on the 1st of February. Once the trees are in bloom, air more or less must be admitted day and night. To prevent the undue lowering of the temperature to the detriment of the Vines starting into growth a little heat in the pipes may be provided during cold and frosty weather. The temperature best calculated to suit the stone fruit trees all through the growing season will be a moderately low one, always with a slight current of air circulating through the house, a lower and a more airy temperature than that which would suit the Vine best. Therefore in growing the two together it must always be a question of compromise between the two throughout the season.

We would suggest that in dealing with the subject a far more satisfactory result would be arrived at by dividing the house into two (having a partition between), planting the Vines in one division at the right distance apart, reserving the second division of the house for the fruit trees in pots, where the proper conditions necessary to successful growth could be provided and complete success achieved both with Vines and the pot trees. Supposing the grower is now about to buy his trees with the intention of having ripe Cherries early in May until well into June, and Plums from the first week in June until they are ripe out of doors, he should make sure that the trees are well furnished with fruit-buds and that they were repotted about the end of September in pots not

too large. The trees are best left out of doors until introduced into the house about the middle of January, provided the pots are protected from frost and from too much moisture at the root. Annual repotting in the autumn is imperative if satisfactory crops are to be obtained. The subject is a large one—far too large to enter into fully in answer to a question. One of the chief conditions necessary to success in the growth of the Plum and the Cherry in pots is to provide a fairly cool atmosphere, with a circulation of air day and night until the trees are well set with fruit, using as little fire-heat as possible, but this must be available when wanted in case of a spell of frosty and cold weather. After a good set of fruit is secured a more generous temperature may be given, but the trees on no account should be hard forced at any time. Disbudding must be duly attended to; so also must the top-dressing of the roots with rich soil, consisting of half loam and fresh horse manure, with a sprinkling of bone-meal. The young roots will take to this top-dressing with great avidity, and it should be



repeated over and over again at intervals until the top-dressing is built up several inches above the rims of the pots. Rain-water should be used for watering and syringing when available, especially for syringing purposes, as it leaves no sediment behind on the fruit. Watering must receive great care at all times: give an abundance during hot weather whilst the trees are making their growth and the fruit swelling, and twice a week at least use diluted manure water. As soon as the fruits show signs of ripening plenty of air must be admitted, as high flavour and finish cannot be had without. Plums should be left on the trees until well ripe, and they should never be picked immediately after watering or the flavour will be insipid. They should be separated from the branch by a pair of scissors, and not plucked off. Insect pests must be guarded against at all times by periodical fumigation with XL All insecticide. Soon after the trees have ripened their crop they should be removed out of doors and plunged in leaves or ashes, potted at the end of September, and introduced into the house for forcing again in June.

The following varieties of Plums, arranged in the order of ripening, are amongst the best for dessert, and succeed well under pot culture: July Green Gage, Denniston's Superb Gage, Green Gage, Oullin's Golden Gage, Transparent Gage (new early), Purple Gage, Kirke's Purple, Guthrie's Late Green Gage, Coe's Golden Drop, Jefferson's, President (Rivers'), and Rivers' Late Orange.

Cherries, in order of ripening: Guigne d'Annonay, Belle d'Orleans, Bigarreau Jaboulay, Frogmore Bigarreau, May Duke, Belle de Choisy, Elton Heart, Royal Duke, Governor Wood, Waterloo Heart, Bigarreau Napoleon, Bigarreau Monstrous, Florence, and Black Tartarian.—Ed.]

## THE ROYAL HORTICULTURAL SOCIETY AND ITS CONFERENCES.

[TO THE EDITOR OF "THE GARDEN,"]

SIR,—Permit me to answer the criticism of Mr. Barr re the Royal Horticultural Society and its conferences (page 308). It would be impossible to frame a five-year schedule, and the Lily conference was a huge success. Many of the most famous Lily authorities in the world contributed, Dr. Henry among the number, and the volume of the Journal containing the report and the papers read is surely an answer to Mr. Barr's remarks. The Royal Horticultural Society is to-day in a proud position, and we are glad. It is a source of great satisfaction to me that THE GARDEN, a journal I now take keen delight and interest in, supports the council of the Royal Horticultural Society in all its good works. I am glad THE GARDEN is still quietly working for a proper sphere of action with regard to adequate trial grounds, and I hope its efforts will not be unavailing. F. R. H. S.

[We thank our correspondent for his kind remarks about THE GARDEN.—Ed.]

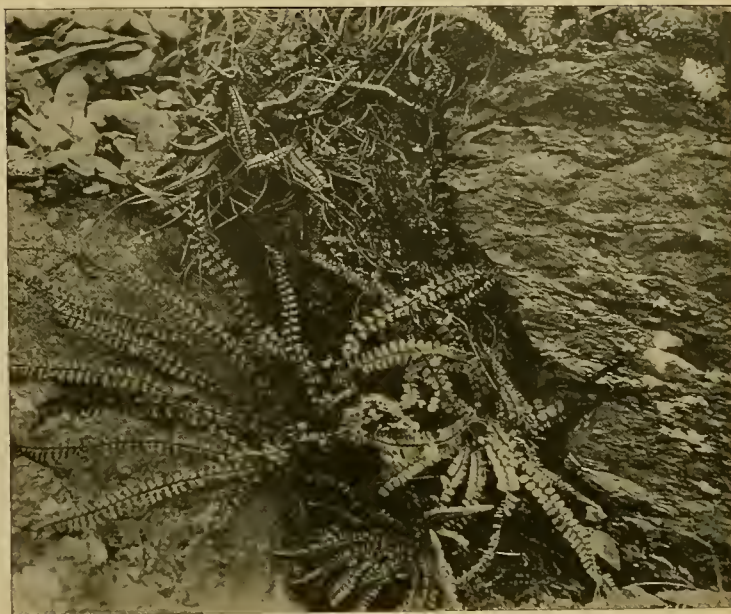
## THE FERN GARDEN.

### THE MAIDEN-HAIR SPLEENWORT.

(ASPLENIUM TRICHOMANES.)

UNDOUBTEDLY this little Fern is one of the prettiest of our wall Ferns, and in many places where the Fern vandal is discouraged it may be found draping old walls with its pretty rosettes, or peeping from the chinks of wayside stone dykes and hedge banks. Its popular title of Maiden-hair is due to the intensely black and shining slender midribs of the fronds, but it has no connexion with the Maiden-hair family proper, the Adiantums; like most of their relatives, of which they have many, the Asplenium or Spleenworts constitute a large genus. It is evergreen and loves a rocky situation: it is also a lover of dry positions, and consequently does not readily lend itself to culture under the moister

environments preferred by, and hence afforded to, most Ferns which are grown. The fronds object to being wetted much, and are apt in such case to turn black, with a kind of rot, if kept under close conditions, which hinder evaporation. The best plan, therefore, is to give it a north aspect in a wall chink, or to insert it between pieces of stone or brick arranged on a steep slope, and then to cover it with a bell-glass which freely admits air beneath it. The finest specimens we have seen in cultivation were grown in this way. Curiously enough though the family of Spleenworts is a large one, and peculiar in the great range of size which it embraces (A. septentrionale, for instance resembling a small tuft of grass, while A. Nidus, the Bird's-nest Fern, may have huge fronds 5 feet high and 1 foot across), there is very little tendency to sport among the great majority of the component species. One little Maiden-hair Spleenwort, on the other hand, has broken through the family tradition of constancy, and given quite a number of pretty varieties. A. T. mersum, for instance, has been found repeatedly in a wild state, and represents precisely the same sport in the Spleenworts as Polypodium cambricum or the plumose and so-called Welsh Polypody does in that family. The little side divisions of the species are normally oval and smooth edged, but in incisions they are very much larger and beautifully cut into sharply pointed segments. Crested forms have also been found over and over again, in which the end of the frond is branched out into ornate little tassels. A. T. cristatum and A. T. hamo-cristatum. Others again, like A. T. Mouleii and A. T. Harrovii, have the side divisions extra small and the edges deeply crenate or bluntly toothed. A friend of the writer, Mr. C. B. Green, of Acton, recently found examples of this in Devonshire, and being the happy possessor of a camera, he seized the rare opportunity thus afforded of photographing a wild Fern sport *in situ*, as shown in our reproduction. The photograph is the more interesting, as it shows how varieties originate in conjunction with the common type, which is also shown in the picture. Besides the main plant of the "find" we may detect a seedling of it in the top right hand corner, and in fact there were several others close by. The spores of A. Trichomanes and its varieties are very easily raised in the usual way, and the plants, as a rule, come true. The incisum group, however, are invariably barren, and consequently rare, as they can only be propagated by division. A group of the best types grown as suggested forms an extremely pretty picture. We have grown good specimens also in a Wardian case by giving plenty of light and taking particular care only to water the soil and not the fronds. Treated thus judiciously the small size of the species renders it peculiarly fitted for such culture. The sportive capacity of A. Trichomanes, coupled with the established fact that it is possible to induce variation in more or less allied species by means of hybridisation, opens up a fine field for Fern hybridisers. As we have said the genus varies greatly in size and also in form, some species being delicately cut, as in the Asplenium bulbiferum group, and some not cut at all, as in the Bird's-nest Fern, which rather resembles a huge Hart's-tongue, but in so doing by no means forfeits its claim to



ASPLENIUM TRICHOMANES VAR. CRENATUM GROWING WILD.

Spleenwort kinship, as the Hart's-tongue itself is undoubtedly closely allied. Discrepancy in size, however, forms no bar at all to Fern crossing, hence the giant and the pigmy species may quite possibly mate, and this possibility involves a chance of introducing differences of form and greater delicacy of cutting and capacity for forming tassels into such species as have hitherto declined to "sport" spontaneously. Sow the spores of the two species together, the plain fronded exotic and the ornate sport of the native A. Trichomanes, and while the grower cannot lose, since any way he gets his crop of both, he may gain by finding some day amongst his sportlings a *rara avis* in the shape of a brilliant combination, plus probably a harder type of the exotic form. Such things have been done in another family, the Polypodies—P. Schneiderii to wit—and therefore may be done again. In that now well-known Fern, our comparatively little P. vulgare, in its beautiful varietal finely cut and eccentric Cornubiense type, has infused its full character into the huge growing exotic P. aureum, while hardening it sufficiently to stand some degrees of frost, as our own experience demonstrates.

CHAS. T. DRURY, F.L.S., V.M.H.

## GARDENING OF THE WEEK.

### THE FRUIT GARDEN.

PLANTING FRUIT TREES.

RECENTLY instructions were given for planting some varieties of hardy bush fruits, and many of the remarks then made are applicable to the subjects now treated upon. Directions have also been given for preparing the land. In the case of Apples, Pears, Plums, and similar large growing trees, however, it will be advisable to secure them to reliable stakes as soon as they are planted, and in carrying this out their bark should be protected where it comes in contact with the stakes with pieces of old indiarubber hose or hay bands. The stems of trees that are planted against walls should be kept at least 4 inches clear, so that adequate space for them to swell is afforded, and they should be but loosely secured to the wall until the soil has settled. Excellent varieties of all kinds of fruit suitable for special purposes are now very plentiful, but space prohibits lists of them being enumerated here.

STANDARD APPLES, PEARS, &c.

Sheltered sites should be chosen for these



sufficiently far away from forest trees to prevent injury from their shade or roots. The trees should be worked upon free stocks and be planted at least 24 feet apart each way. In planting varieties that yield very large fruits select positions for them that are the most sheltered, otherwise much of their best fruit will probably be blown down and spoilt, and in grass orchards each tree should be protected from cattle and rabbits and have a space of several feet in diameter cultivated around it. Standard Plums should possess clean stems 6 feet in height, and strong growing kinds be planted about 20 feet asunder, while moderate growers should be placed from 15 feet to 18 feet apart.

#### PYRAMID AND BUSH TREES.

Apples, Pears, Plums, and compact growing varieties of Cherries should in an ordinary way be planted 12 feet apart each way, although where great variety is wanted, compared with the space at command, they may be confined to 9 feet, while strong growing Cherries with spreading habit should be allowed 15 feet. Pyramids and bushes are much more suitable trees to plant, at least in gardens, than are standards, but in any position they are best grown upon cultivated land, and for this description of tree the Apple should be worked upon the Paradise and the Pear upon the Quince stock, this being all the more important if the soil is deep and strong.

#### CORDON TREES.

This mode of training has some decided advantages, amongst them being early fertility and that of its being possible, by planting trees of this kind, to secure a greater variety of fruit from a given space than can be obtained from any other sort of tree. The Pear is particularly amenable to this mode of culture, either when grown upon walls or trellises. Single cordons should be planted from 15 inches to 18 inches apart, the trees being worked upon the Paradise stock.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

### INDOOR GARDEN.

#### FORCING SHRUBS.

THOSE who contemplate purchasing from the nurseries should do so without further delay. For early forcing plants that have been grown in pots during summer are preferable, and are best adapted for this work. It is a good plan to place the plants on arrival in damp leaf-soil or cocoanut fibre, watering them well. Let them remain for a few days previous to potting; after potting they should be watered and plunged in cocoanut fibre, which will keep the roots moist. Protect them from frost until taken indoors. These plants will repay careful attention, and should be given pots of a size that will admit of about an inch of soil being well pressed in around the root mass. Liberal drainage and good rich fibrous loam, peat, and sand should be used. Those delivered in pots should have their drainage and roots examined.

#### LILACS

are indispensable for forcing, and are always admired when in flower. Imported plants from the continent are invariably the best for early forcing. A moist temperature of about 55° will be sufficient at first. When placed in too high a temperature growth is induced to start, and the flowers often remain dormant and die away instead of opening. Marie Legraye is the best early white. Charles X. is a fine dark free-flowering variety. Gloire de Lorraine is the best red one. President Grévy, Mme. Lemoine, and Michael Buckner are some of the best sorts.

#### MAGNOLIAS

make excellent plants for pots, but must not be hard forced. M. Lennei is a deep red, M. Yulan is a good pure white, M. Soulangeana is a white variety tinged with pink. The Guelder Rose (*Viburnum Opulus*) and *V. plicatum* are useful for forcing. *Dentzia gracilis*, *Staphylea colchica*, and *Kalmias* with their lovely red and pink flowers must not be overlooked. *Prunus*, *Genistas*, and *Almonds* are shrubs which lend themselves to

forcing. *Rhododendrons*, *Choisya ternata*, and shrubby *Spiraeas*, such as *Louis van Houtte* and *prunifolia*, must also be included. *Wistarias*, *Laburnums*, and many other things might be mentioned. Many of the above will come into flower without being subjected to a high temperature, and the flowers will last for a much longer time, and are of a much better colour when not hard forced.

#### AZALEAS.

These are among the most important of hard-wooded plants for cut flowers or as decorative plants for the greenhouse. Where a large quantity of cut flowers is desired early, old plants are the best for this work. Such varieties as *Deutsche Perle* and *Fielder's White*, if the growth has been well ripened early, will come into flower at this season with very little forcing. Azaleas are very liable to the attack of thrips and red spider. Syringing the plants freely—on no account letting them become dry at the roots—will keep these pests at bay. *Azalea mollis* and *Ghent* varieties should be largely grown for decoration and cutting purposes. When not hard forced the flowers will last well in water.

Slough.

JOHN FLEMING.

### THE FLOWER GARDEN.

IF one desires that portion of the flower garden adjacent to the dwelling-house to be interesting and pleasant during the winter months attention to covering the bare surfaces may be commenced as soon as the autumn flowers are over, but this year beds and borders of herbaceous perennial and annual plants have remained exceptionally long in beauty, and while they remain thus it would be simply folly to interfere with the beds unless it is just occasionally going over them to remove unsightly plants. Once, however, frost and wet have destroyed their preparation should be made to enhance their appearance, and for this purpose a good collection of shrubs of various shades and hues should be at hand. Herbaceous plants, perennial and biennial, with fine foliage may with advantage be employed, *Aralias*, *Ajugas*, *Stachys*, *Sempervivums*, *Sedums*, *Thymes*, *Wallflowers*, and large flowered *Viucas*, with groups of bulbs amongst them, would make an effective arrangement to interest and please throughout the winter and prevent these particular beds from becoming eyesores. Bulb planting should be finished as soon as possible. All kinds of plants might now be relegated to their winter quarters in the propagating department, where the more delicate sorts should be arranged by themselves, while those requiring cooler treatment should be kept together.

The present is a good time to make in the reserve garden a bed of *Lily of the Valley*. In May and June such a bed is invaluable for cutting from, as these beautiful flowers are always in demand. Partial shade and plenty of moisture are essential to their successful culture, while in preparing the ground quantities of leaf-mould and rotten cow manure should be used. In planting the crowns they should be placed 2 inches apart, when they will thrive for five or six years without any need of being removed.

St. Fagans.

HUGH A. PETTIGREW.

### THE KITCHEN GARDEN.

#### TRENCHING.

I do not advise trenching wet, heavy soils before spring, as I have proved that it is far better done at that season, but on light, porous ground no time should be lost in pushing this forward. Every vacant plot should if possible be so treated before the end of the year. Though it is not possible in all gardens owing to want of labour, every endeavour should be made to take advantage of deep cultivation as much as possible, for by so doing new life is put into old gardens and the return is great compared with that from land simply dug over. In case of heavy soils where it is not possible to leave all till early spring owing to pressure of work at that season, it will be far better to do it now than not at all. Work in plenty of long stable litter at the bottom,

and, indeed, refuse of almost any kind, such as leaves, sweepings from the walks, burnt refuse, and so forth. When the soil is deficient in lime strew a good coating over the surface after the work is completed. Mushrooms are in most places highly esteemed all through the year, and advantage should be taken to make up a bed in every available place where they are likely to grow and plenty of material is at hand. Beds may be made up in the open at any season of the year. When properly done and a sufficient bulk of suitable material is placed firmly together, make it up ridge-shape, and well cover with long stable litter. Good results may be looked for sooner or later, even during the depth of winter. Beds which are now bearing in the Mushroom house will be much improved by giving a good soaking of farmyard manure water when dry, which should be warmed before using. Avoid too much fire-heat or the yield will be short and the quality poor. What promotes the good growth of Mushrooms during the winter months is the slight heat which arises from newly-formed beds.

Seakale is very late ripening up its crowns this season, consequently it will not answer to forcing quite so well as in some years, but every endeavour should be made to push it along as speedily as possible. Introduce good batches weekly, giving it the warmest end of the Mushroom house or some other convenient place.

#### CHICORY,

generally much appreciated for winter salads, should also be brought on in heat, keeping it quite dark. The roots are much better left in the ground and taken up as required, unless the weather threatens to be very severe, when in this case some may be taken up and stored away in ashes.

Dandelion should be treated in the same way as Chicory.

#### ENDIVE AND LETTUCE.

Late plantings of these have made good growth, and no time should be lost in placing the plants in cold frames, late orchard houses, or in some position where protection can be given.

#### CHEVIL.

Lift and plant in boxes small quantities at a time and store in cool houses or frames.

#### MUSTARD AND CRESS

should be sown in boxes and placed under glass weekly.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### ORCHIDS.

#### ORCHIDS IN BLOOM.

At no season of the year are Orchid flowers more appreciated than at present and during the winter months, and with the numerous species and varieties now available there is little difficulty in maintaining a show throughout the year. Many of the hybrids bloom during the autumn and winter months and tend to brighten our houses at this season. Considering the time, care, and expense required to bring such plants to perfection, it is remarkable what lovely hybrids can be bought at a very low figure. The freedom with which they grow and the way they increase gives lovers of Orchids who intend forming good collections every encouragement to procure all the hybrids as they appear.

In the Cattleya houses the following are a few of the hybrids now in bloom: *Cattleya Lord Rothschild* (*C. gaskelliana* × *C. dowiana* var. *aurea*), *Laelio-Cattleya Lady Rothschild* (*L. Perrinii* × *C. Warszewiczii*), *Cattleya Mrs. J. W. Whiteley* (*C. bowringiana* × *hardyana* var.), *Cattleya Portia* (*C. bowringiana* × *C. labiata*), *Laelio-Cattleya Decia* (*L. Perrinii* × *C. dowiana* var. *aurea*), *Cattleya Mantinii* (*C. bowringiana* × *C. dowiana* var. *aurea*), *Laelio-Cattleya Isis* (*L. pumila* × *C. Marstonianae*), and *Laelio-Cattleya statteriana* (*C. labiata* × *L. Perrinii*). The most conspicuous species now in flower is the beautiful *Cattleya labiata*, accompanied by *C. bowringiana*, the two making a good show. While the plants are in bloom the atmosphere must be kept drier than usual or the flowers are quickly disfigured by



spot and do not last their usual time. After the flowers have been taken from the plants, the bases of the sheath and flower-stem upon some plants of *Cattleya labiata* remain damp and a downward decay takes place, which, if not noticed in time, will inevitably ruin the bulbs. When a sheath is not dry and crisp and ripened off in a natural manner, it should be entirely removed and the flower-stem cut clean off. Should there be any sign of decay, scrape away the base of the flower-stem level or a little into the apex of the bulb, and put in a pinch of flowers of sulphur. This quickly dries up the affected part and prevents the loss of the bulb.

In the warm houses *Dendrobium Phalaenopsis*, *D. bigibbum*, and *D. statterianum* give us a good show of bloom, also many of the *Selenipediums* and numerous species and hybrids of *Cypripediums*. Though there are many fine hybrids of the latter, there are few that surpass in beauty the lovely old *C. spicerianum*, which at this season is one of the most useful. The cooler section of *Cypripediums*, such as *C. leeanum*, *C. lathamianum*, *C. Sallierii*, *C. hyeanum*, *C. venustum*, *C. insigne* and its numerous varieties, *C. i. Sandersi* being the most beautiful. Other species and numerous hybrids will afford us a fine show of bloom for many years to come.

In the cool and cool intermediate houses numerous species and varieties largely contribute to the supply of bloom, *Odontoglossum crispum* being well represented, likewise *O. andersonianum*, *O. ruckerianum*, *O. madrense*, *O. grande*, *O. lochristiense*, *O. Hallio-crispum*, *O. Rossii*, *O. croci-dipterum*, *O. Uro-Skinneri*, *Maxillaria venusta*, *Miltonia vexillaria leopoldiana*, *Sophranitis grandiflora*, *Lælia pumila*, also *Oncidium varicosum*, *O. prætexum*, *O. Forbesii*, *O. tigrinum*, *O. cheiroporum*, *O. ornithorhynchum* and its variety *album*, *O. Mantinii*, and *O. incurvum*. The flower-spikes should not remain long on the plants after the last blooms have expanded, especially those of *O. varicosum*. Many little curiosities are in bloom. If not showy, they are very interesting.

F. W. THURGOOD.

Rosslyn Gardens, Stamford Hill, N.

## MISCELLANEOUS.

**Chrysanthemums at Redhill.**—Mr. William Wells, of the Earlswood Nurseries, Redhill, has, of all the Chrysanthemum specialists, rendered very exceptional service by the introduction of the Pockett seedlings into this country, many of which are of a high order of merit. The flower-loving public had just begun to settle down, as it has on more than one occasion before, to expect that the future novelties were destined to be imported from one source only, a source which had certainly produced many brilliant examples of the raisers' cultural skill, but which after a lapse of several years' unqualified success had begun to show signs of deterioration. American novelties have for some reason or other long since ceased to figure in the yearly trade displays. Continentals of the past two or three years have unquestionably been of a lower order of merit than before, and therefore it is not surprising that the Australian seedlings should have received a larger share of popular support than might have been meted out to them had the quality of the others been maintained. We always begin our round of the trade displays by a visit to Earlswood. Blooms that are produced early in the season and in such fine condition as we usually see them there are always bright and clean. Being away from the metropolis and in the full light of the country we find the colouring more vivid and more in accordance with the raisers' descriptions than when the same varieties are produced close to town. There are several glass structures in which Mr. Wells' Chrysanthemums are housed, but the large show house, containing the pick of the collection, holds about 2,000 plants in pots, all of which were at the time of our visit coming on with great promise, although perhaps a little behind owing to the vagaries of the season. A grand lot of Mrs.

T. W. Pockett must first be noticed; the blooms are really noble and imposing, and the colour a pure deep canary-yellow. Not very much unlike it at a distance is Mrs. Harry Emmerton, an immense Japanese, with long drooping florets, forming a deeply built flower, and of a similar shade of colour. General Hutton is another Japanese floral colossus, but of a bronzy yellow shade. W. R. Church is of a deep rich rosy crimson colour, with reverse of bronze, a massive flower of most attractive appearance. Mrs. Alex. McKinley, like the preceding, is an Australian, and a very effective one too, the colour being a fine golden-yellow streaked with terra-cotta. Cheltoni, a pure pale yellow sport from Nelly Pockett, is identical in all other respects with its parent. From various sources come such striking novelties as Millicent Richardson, a fine amaranth; Godfrey's Masterpiece, Lord Ludlow, Mrs. White Popham, Nelly Towers, a charming shade of rosy mauve with silvery reverse; Bessie Godfrey, Mrs. George Mileham, and many others that were seen for the first time last year or the year before and still maintain their reputation. There are several new additions this season in really rich deep crimsons, one of the finest perhaps being S. T. Wright, a Japanese with pointed florets, the colour being a very deep velvety crimson, showing a metallic reflection, the reverse golden-bronze; Lord Alverstone is another, it has rather flat florets, but the colour is singularly rich and effective even for a crimson. Mr. Wells is of opinion that some of the continentals will this year be improvements upon those of the past two or three seasons. We noticed some excellent blooms of Mme. Paolo Radaelli, a variety already well known, but still sufficiently recent to be regarded almost as a novelty, and one of the best of Calvat's recent seedlings. From the same raiser comes La Fusion, a large globular Japanese with intermingling and incurving florets, colour pure white tinted flesh. His older Louise and Mme. Gustave Henry both continue to be good and useful varieties, and Calvat's Sun, a fine deep golden-yellow Japanese, first shown at the Great Paris International Exhibition of 1900, is undoubtedly a novelty of conspicuous merit. This year's seedlings include Mme. Waldeck-Rosseau, a monster bloom of enormous size, having florets that are deeply grooved, pointed at the tips, and building up to a form of great depth and solidity. The colour, a deep velvety crimson-red, with a straw yellow reverse, makes a striking effect, and we should think there is a future in store for this, especially on the show-boards. Mme. L. Cheveaut is a charming shade of rosy flesh pink something paler but not altogether unlike Mrs. Coombes. In Calvat's set we also noticed Louis Levêque, a very large Japanese of a velvety plum-coloured crimson; Melina, Souvenir du Ministre P. Legrand, and Electreux we must see again before anything can be said of them.

**Southwark Park.**—Among the various Metropolitan displays of Chrysanthemums the collection at Southwark Park is always of peculiar interest, by reason of the disadvantages that surround it. Situated in a densely-populated neighbourhood, and surrounded on every hand by dingy streets of houses and factories, it is surprising what a remarkably good display of the popular autumn flower is annually made, to the evident delight of many of the residents who otherwise would have but little opportunity of gratifying any horticultural tendency they might have. The nearest approach to the T-shaped greenhouse, in which the collection is very tastefully arranged, is that in the Gomm Road, and a few paces to the right brings the visitor in full view of the house. The collection is an admirable example of gratifying every taste, for it contains varieties of every type and section. Some of the old-fashioned incurves are in good form, and of these white Beverley, C. H. Curtis, Mr. Bunn, Prince of Wales, various members of the Queen family, the highly-coloured Baron Hirsch, and Jeanne d'Arc need no description. The large Anemone-flowered section is also represented in fair proportions, and is useful by way of varying the effect. The richly-coloured Descartes has no rival in such mixed groups as we see in the London parks, and is always well done. Junon,

a pale lilac mauve, Mrs. P. R. Dunn, a large white self, Delaware, M. Chas. Leboezy, and Mrs. Judge Benedict are other instances in the section named. Here, as elsewhere, the weird fantastic Japanese predominate. Raisers from all parts of the world contribute their quota towards charming the eye of the local connoisseur, who, from remarks that were audibly made in our presence, is quite competent to pass judgment on some of the more recently introduced kinds. From America there are the bright rosy pink Wm. Tricker, Eda Prass, pale pearly pink; Duke of Wellington, a fine solid golden bronze incurving Japanese; Good Gracious, always curious in form; International, J. H. Runchman, a deep globular golden-yellow; Simplicity, Col. W. B. Smith, and others which we cannot specifically mention. Among the French varieties those of Calvat must still take precedence. In whites the Mme. Gustave Henry is wonderfully fine. Various shades of pale pinks and mauves include noble blooms of N. C. S. Jubilee, Mrs. C. Harman Payne, Louise, a grand incurving Japanese of some years standing; Mme. C. Terrier, Mme. Marin Ricoud, Mrs. Ed. Rey, and L'ami Etienne, the last two being especially valuable for their size and earliness. Others from the same raiser are M. Pankoucke, Boule d'Or, Soleil d'Octobre, Le Grand Dragon, Amiral Avellan, and M. Fatzer, which are either yellow or bronze, while purple and crimsons include Commandant Blussel and M. George Biron, both extremely useful sorts. There is a good mingling of excellent sorts from other Continental growers. We need only name Duke of Berwick, Mme. Gab. Debrie, M. Louis Rémy, La Triomphante, and Ed. Audiguer to remind us that Delaux, Nonin, de Reydelles, and others have not been entirely supplanted in our general collections by their great rival. Hairy varieties, which once formed a prominent feature in Southwark Park, appear to have declined in popularity here as elsewhere. We only observed Louis Boehmer, Beauty of Truro, and Enfant des deux Mondes belonging to that section.

**Chrysanthemums at the Monkham's Nursery, Woodford.**—The neighbourhood of Woodford in recent years has developed into a well-known centre of Chrysanthemum growing interest, several of our more prominent cultivators hailing from this part of Essex. No one has made greater strides than Mr. R. C. Pulling, his magnificent exhibits at the Royal Aquarium, Westminster, and also at Edinburgh's grand autumn display gaining for him enviable notoriety. This season he has excelled his display of large and handsome exhibition blooms, outvaluing any of his previous efforts. No pains have been spared to achieve success, and on the occasion of our visit evidence was not wanting of the pains taken to produce good blooms. Phenomenal representatives of the majority of the best Japanese sorts in cultivation were to be seen, and not only were they large, both in depth and breadth, but they were also of good form and remarkable for their rich and bright colours. Immense blooms of the massive-looking Japanese incurved W. R. Church confronted one on entering the capacious glass structure in which the exhibition plants are housed. This is a grand rich crimson flower with a rich bronze reverse to the broad, incurving petals of considerable substance. The beautiful English-raised seedling Mrs. G. Mileham was in grand form and condition. The lovely silvery mauve-pink is very pleasing, and the form is all that one could desire. The silvery white reverse enhances the value of the blooms, which are deep in build. The Australian novelty, Mrs. T. W. Pockett, is a large flower of neat and even form, and of great depth. Deep canary-yellow is hardly accurate, a deeper shade of yellow being a better description altogether. This variety appears to be very reliable, coming good on all buds. Matthew Smith is another very large Japanese novelty, tinted reddish crimson on a golden-yellow ground. There will be many blooms of exceptional quality shown. Mme. Carnot, white; Mrs. W. Mease, primrose; and G. J. Warren, rich yellow, make an admirable trio. Blooms of Mrs. Barklay have probably never



been seen in finer condition. There was an immense number of heavy blooms, with petals of enormous breadth and substance, and the rosy mauve inside colouring and silvery white reverse have rarely if ever been equalled. Ethel Fitzroy, one of Mr. A. Weeks' superb seedlings, promises to be of great value to exhibitors. The colour is orange-amber, and the flowers are large and handsome. It is also a plant of easy culture. A refined bloom is Mrs. E. Hummel, with long petals, building a curious and prettily-shaped Japanese incurved. The colour is pinky white, shaded yellow. This is another of Mr. Weeks' seedlings. A lovely flower is Miss Evelyn Douglas, and quite unique in its build and character. The petals are not over long, but they are very numerous, and make a flower of great depth and solidity. The colour is one of its chief charms, this being a pleasing shade of rosy mauve, slightly tinted cerise. A rich golden-yellow flower is Scottish Chief, and a superb specimen of this deep flower of good form was conspicuous. Mr. Pulling has been singularly successful with *Le Grand Dragon* this season. There were blooms of great breadth and good depth, and in accomplishing this the form was all that one could desire in stiff competition. The colour this season is a grand orange-yellow, and is very effective. That grand plant of Australian origin, J. R. Upton, was bearing very large and deep blooms of a beautiful shade of yellow. Sensation, the flower which was so much admired among last season's novelties, is finishing in grand form. The blooms are of great breadth and correspondingly deep. Deep rich yellow, shaded bronzy crimson, aptly describes its colour; it will be invaluable to exhibitors. The soft yellow or primrose colour of Mme. Von André, the pretty sport from Mutual Friend, is another of the good things this season. There were, of course, many others which space does not permit us to mention. Incurved Anemones and Pompons were each represented in good form and by reliable kinds. In all some 12,000 plants are grown here, 900 of which are reserved for exhibition purposes.

#### Chrysanthemums at Forest Hill.

Messrs. J. Laing and Sons have on view at the present time a representative collection of the best standard varieties for various purposes, and the plants occupy two large greenhouses that are specially set apart for their accommodation. Very striking and effective both for richness of colour and for size are the seedling varieties raised and distributed last season by Mr. W. J. Godfrey. We particularly noticed H. E. Hayman, apricot-yellow; Edward VII., rich claret-crimson; Bessie Godfrey, pure canary-yellow; Wallace E. Vowden, rosy carmine; and Godfrey's Triumph, rich ruby-crimson, varieties which form part of a set that any raiser might well feel proud of. From other raisers we get the ever-useful *Soleil d'Octobre*, Mme. Ed. Roger, always a curiosity on account of its peculiar green shade; W. R. Church, a very solid bloom of a deep rich plum-coloured crimson; and Lady Osborne, a pale pink Japanese of large size. Older varieties that have done well include Viviani Morel, Phœbus, Hairy Wonder, Eva Knowles, a beautiful warm golden terra-cotta-coloured Japanese of excellent form, and its sport, J. E. Clayton, a very pure pale yellow; Florence Molyneux, the big white Japanese of recent introduction; Elaine, Lady E. Clark, and Mrs. Molyneux are some of the best of the whites. Richer shades of purple and crimson are seen in Lionel Humphrey, Mr. T. Carrington, and Edwin Molyneux. Several large Anemone-flowered varieties are in good form, John Bunyan, W. W. Astor, and Mme. Lawton, a variety with very long florets, colour pale lilac-mauve, being the chief attractions in this class. Several freely-flowered plants of the rosy pink single variety, called *Ladysmith*, are employed for decorative effect, and are most useful for the purpose.

#### Chrysanthemums at Swanley.

For many years past the large show greenhouse at Messrs. Henry Cannell and Sons, of Swanley, has been the rendezvous of many a lover of the Chrysanthemum, and on the occasion of our recent visit there we were not at all surprised to find a

number of visitors from a local horticultural society making a tour of the establishment for the purpose of inspecting the novelties of the season. Mr. Henry Cannell, sen., has had a lengthy acquaintance with the popular favourite, and, in spite of increasing years, seems to maintain his old enthusiasm for a flower which has probably undergone more change than any other in the same period of time. This lengthy experience has necessarily led to a keen discrimination of the wants of the Chrysanthemum-growing fraternity; and, therefore, the Swanley firm has for years past had contributions from every raiser, both at home and abroad, for the purpose of testing their novelties and distributing such as have been proved to be really meritorious. Seedlings, too, have been grown at Swanley with the best of results, the consequence being that by the means already stated the collection is one of the most extensive and select in all its sections. A large span-roofed greenhouse, 160 feet by 25 feet, is devoted to the housing of the flowering plants in pots, of which at least 3,000 were on view at the time of our visit. The arrangement is at once simple and effective, for there is a central group of plants down the middle of the house, with a rather narrower border round the sides, thus presenting a fine display of colour such only as the Chrysanthemum can give at this season of the year. It is difficult to specify the origin of many of the varieties grown, but we may begin, for present purposes, with some of those from the continent. Mme. Liger-Ligneau, a close and compact looking incurved Japanese, with narrow florets, colour pale-lilac mauve, is the first to be noticed. We remember seeing this variety when it was awarded the gold medal of the American Chrysanthemum Society at the Paris Exhibition, 1900, as the best new seedling then shown. Calvat sends us Mme. Waldeck Rousseau, a bloom of noble proportions, deep in build, with broad-grooved florets of great solidity, and the colour a fine shade of velvety magenta-crimson, with a silvery pink reverse. Marquis Visconti-Venosta is another massive bloom from the same raiser, but better known. In O'tahite, the same raiser sends us a big bloom of a beautiful shade of pure reddish crimson, reverse golden bronze. Louis Leroux is deep and solid in build, colour deep golden-yellow; a Japanese flower with very broad-grooved florets. Mme. Paolo Radaelli is now fairly well known, being one of a former series; a remark that also applies to several other prominently fine varieties. Among other novelties from the same source, Merlina is very large but wanting in colour; F. S. Vallis is a Japanese, with narrow, long, and drooping florets of a dark canary-yellow, should be heard of again; Louis Leveque; Mme. L. Chevrant, a soft, rosy flesh-coloured Japanese; La Fusion, an incurving Japanese, pale flesh colour; Mme. G. Chirac, and several others that might be named but for the exigencies of space, will all help to keep this eminent Frenchman's name still before us. Passing to those much farther afield, we must call special attention to an Australian seedling called Lord Hopetoun, a really striking Japanese of large size, with florets of medium width, the colour being a brilliant deep reddish crimson, and reverse of old gold; Mrs. Harry Emmerton, a large yellow Japanese; Mrs. Geo. Fairbairn, a rich golden buff, with florets curly at the tips; General Hutton, which was seen in good style last year, form, with many others, a batch of varieties of the highest promise. Nowadays it is curious to note that we seldom or never come across anything new in the Anemone and Pompon section, and rarely in the old-fashioned incurved type. Even the once clearly defined dividing lines that separated the Japanese into several distinct sections seem to be passing away, a result that must have been brought about largely by the intercrossing of the various types. In matters of taste there is no dispute, and certainly there is no difficulty, for the most fastidious grower, either for decoration or for show, to make a selection out of the novelties comprised in the Swanley collection, and for this purpose anyone has only to bear in mind the well-known trade motto of the firm, "Come and see."

## SOCIETIES.

#### HIGHGATE AND DISTRICT CHRYSANTHEMUM SHOW.

THE migration of this society's show to the Alexandra Palace at Muswell Hill, N., appears to have been a wise move, if we may judge by the magnificent exhibition got together on the 29th, 30th, and 31st ult. It was the first of the shows on the north side of the Thames, and, although the season is late, there was a remarkably fine lot of blooms staged for adjudication. This society was one of the pioneers in encouraging the exhibition of large blooms in vases, and on the present occasion there were more exhibits of this kind than have ever been seen before. The table decoration and other classes of a decorative character were well filled, and the exhibits were also of a high order of merit. They were quite an important feature of the show. Groups and specimen plants were below the average, although special inducements in the way of valuable prizes were offered. Miscellaneous exhibits from the trade ably supplemented the efforts of the members, and together these made up an exhibition that even the National Society might be well proud of.

Of the more important classes, that for twelve vases Japanese Chrysanthemums, distinct, each vase to contain five blooms of one variety, to be faced all round, was the leading one. There were three grand exhibits, leading honours and the silver cup falling to the lot of Mr. J. Brooks, gardener to Mr. W. J. Newman, Totteridge Park, Totteridge. His flowers were very heavy, fresh and clear, and also of good colour. They were represented by J. R. Upton, Mrs. Barklay, W. R. Church (grand), Australie, A. H. Barrett, Mrs. T. W. Pockett, Mrs. G. Mileham, and others. A good second was Mr. G. J. Hunt (gardener to Mr. Pautia Kalli, Ashstead Park, Epsom), who had a bright lot of blooms. Third prize was won by Mr. J. Kirkwood, the Gardens, Grass Park Farm, Finchley, N.

For six vases of incurved varieties, distinct, arranged in the same way as the preceding class, there were three sets. The silver cup and money prize for leading position was won by Mr. Hunt, who had a nice even and fresh lot of blooms of Lady Isabel, John Lambert, Hanwell Glory, Empress of India, Miss Dorothy Foster, and Ada Owen. Second prize was awarded to Mr. A. Jones (gardener to Misa Wyburn, Hadley Manor, Barnet), who had larger blooms, but far less even than those in the first prize exhibit.

Of five competitors for a single vase of six Japanese blooms, distinct, arranged with any foliage for decorative effect, Mr. Brooks was again to the fore, with a large vase of good blooms of splendid colour, neatly and artistically disposed. Second prize was won by Mr. G. Frost (gardener to Mr. R. Wear, East Hill, Oakleigh Park, with blooms set up in an Oriental vase which harmonised beautifully with the flowers. Third prize went to Mr. J. Sandford (gardener to Mr. W. Wright-Ingle, North Finchley).

For a vase of Pompons arranged for decorative effect, Mr. S. North (gardener to Mr. F. Snowden, Broughton Lodge, Shepherd's Hill, Highgate), was placed first with a neat arrangement of mixed colours; Mr. D. E. Crane, 4, Woodview Terrace, Aitchway Road, Highgate, N., following with reddish crimson and yellow flowers; and Mr. S. Foster (gardener to Mr. R. Nivison, Tenterden Hall, Hendon, third.

An interesting class was one for twelve sprays of undisbudded Chrysanthemums arranged in a vase, and this brought out seven competitors, premier honours easily resting with Mr. D. E. Crane, who had large freely-flowered sprays of rich and warm colours. Second prize was secured by Mr. G. Saunders, 13, Victoria Cottages, Highgate, N., and third prize fell to the lot of Mr. A. Jones.

In a special class for one Japanese bloom, quality to be the leading feature, a superbly fine specimen of Miss Elsie Fulton, a pretty creamy white Japanese incurved variety, was a good first; Mr. J. Kirkwood taking second position with a bloom of Mrs. G. Mileham of good colour. In a class of a local character for six vases of Japanese Chrysanthemums, distinct, five blooms in each vase, for a challenge cup and a money prize, Mr. T. L. Turk (gardener to Mr. T. Boney, Southwood House, Highgate), was placed first with good blooms of General Buller, Mutual Friend, Mrs. Coombes, Mrs. Greenfield, Mrs. G. Mileham, and Mme. Gustave Henry. This being the second occasion of Mr. Turk winning the cup, it now become his property. Last year's winner, Mr. H. Stonebridge (gardener to Mr. J. G. Ronald, Bishopswood, Highgate), had to content himself with second position, although his blooms were little behind the leading set.

Mr. J. Brooks was first for twelve yellow Japanese, showing Mr. Louis Remy, Mr. Sandford being second, and Mr. A. Jones third.

For twenty-four Japanese blooms, in not less than eighteen varieties, there were five competitors, Mr. G. Inney (gardener to Mr. H. Mansfield, The Lodge, Abbots Road, Barnet), leading with fresh even blooms of good colour; Mr. J. Brooks was a close second; and Mr. Sandford third. The decorative exhibits covered a considerable area, and the classes were well contested. The leading class for a dinner table decoration of Chrysanthemums, with Ferns, grasses, and other foliage at will, in sets of three, found Mr. D. E. Crane in the premier position; Miss D. M. Oliver, 97, Tollymore Park, N., was second; and Mr. J. Shrimpton (gardener to Mr. D. F. Cocks, Hornsey Lane, N.), was third. In a class for a single epergne, Mr. Crane was again first, followed by Mr. C. Halsey, Highgate, and third prize was secured by Mr. Sedgwick, Upper Holloway.

There were two competitors in the Coronation group class, arranged in an oval space, 20 feet by 14 feet. First prize was awarded to Mr. J. H. Witty, Highgate Cemetery; and second prize was secured by Mr. G. Saunders. Flowers and foliage plants were well arranged together, but the quality of the former was much below the usual standard. Miss A. M. Bevan, East Finchley, arranged a dinner table to seat fourteen persons, fruits and flowers being pleasantly intermixed.



Miscellaneous groups came from Messrs. W. Cutbush and Sons, Highgate, and Messrs. B. S. Williams and Son, Upper Holloway; Messrs. Wells and Co., Limited, Redhill, showed cut blooms and a mixed group of Chrysanthemums; Messrs. J. Cheal and Sons, Crawley, Apples, Dahlias, and hardy flowers; Mr. John Russell, Richmond, Apples and Pears in variety; Messrs. Wood and Son, Wood Green, horticultural sundries; and Mr. J. Williams, Oxford Road, Ealing, W., his pretty rustic table decorations. To Mr. W. E. Boyce, the secretary, much praise is due for the excellence of the arrangements.

#### NATIONAL CHRYSANTHEMUM SOCIETY. EXHIBITION AT THE ROYAL AQUARIUM.

As usual the floral exhibits arranged on the fountains were one of the chief centres of attraction, the three competitors making most attractive displays. Mr. Norman Davis, Framfield, Sussex, was adjudged first, his exhibit being set up in a very charming and artistic manner. All types of the Chrysanthemum were represented, the small but pretty Pompons vying with the enormous and massive looking Japanese blooms of high quality for popular favour. Vases towards the base were artistically disposed and phenomenal blooms of new and choice sorts were plentiful. Richly coloured Crotons and graceful Palms and Ferns were arranged in perfect harmony. An uncomfortably close second was Mr. R. C. Pulling, Monkham's Nursery, Woodford, who had the great disadvantage of being in a very poor light. His arrangement was very little behind the leading exhibit, and his massive-looking exhibition blooms

Perkins, gardener to the Hon. W. F. D. Smith, Greenlands, Henley-on-Thames, outdistanced his rivals with a vase of superb blooms of Viscountess Cranbourne, a lovely and distinct bright and rich yellow flower, and a variety of his own raising. Second prize was secured by Mr. C. Edwards, gardener to Mr. H. W. Peal, Oakhurst, Ealing, with beautiful blooms of R. Hooper Pearson, grand colour and full; and Mr. C. Lane, gardener to Mr. E. H. Coles, Burnwood, Caterham, Surrey, was third.

For a vase of six blooms of any other colour, except white and yellow, Mr. A. Jefferies, gardener to Mr. John Balfour, Moor Hall, Harlow, Essex, led the six entries with splendid specimens of Mrs. Barkley; Mr. Perkins was placed second; and Mr. George Hewitt, gardener to Mr. Charles G. Green, Theydon Grove, Epping, Essex, was third.

Hairy-petalled Japanese varieties, arranged in a vase to the number of six, brought out only two competitors, and the quality was certainly much better than we have seen before. Mr. H. Love, Shanklin, Isle of Wight, was a good first with mixed varieties, including a good seedling of his own; and second prize was won by Mr. S. Foster, gardener to Mr. R. Nivison, Tenterden Hall, Hendon, with a pretty lot of blooms.

In a class for a vase of six Japanese blooms, one variety only, Mr. Henry Perkins, with a superb lot of his yellow seedling Viscountess Cranbourne, arranged with autumn-tinted and other foliage, was again in the leading position; Mr. H. Parr, gardener to Mr. F. A. Bevan, Trent Park, New Barnet, was second, with poorly-coloured blooms of Mr. A. Barret and with Vivand Morel (small); Mr. F. A. Coote, gardener to Mr. E. W. Howard, was third.

Mileham were handsome specimens. Mr. George Hewitt, with a good bright lot of blooms of even form, was second; and Mr. W. L. Bastin, Faringdon, third.

In the amateurs' division A, for twelve Japanese blooms, distinct, Mr. M. Rayment, gardener to Mr. W. Beech, North Ockenden, Romford, was first; Mr. Leonard Gooch, gardener to Mr. T. Wickham-Jones, Frocester Lodge, South Norwood, a creditable second; and Mr. A. Page, gardener to Mr. G. W. Kilner, Ravenscroft, North Finchley, third.

For eighteen Japanese blooms, distinct, Mr. J. Childs, gardener to Mrs. Foss, The Priory, Totteridge, was first for a rather heavy lot of blooms, though lacking colour; and second prize was secured by Mr. A. Page with smaller, though neat and well-coloured blooms. The third prize was won by Mr. C. H. Martin.

Ten contested the class for six Japanese, distinct, Mr. A. Robertson, gardener to Mr. F. J. Yarrow, St. John's Wood, being first; second, Mr. H. Pestall, gardener to Mr. F. S. Wigram, Elston, Bedford; and Mr. J. Childs third.

Mr. A. Robertson again led in the class for six Japanese, one variety only, showing nice blooms of W. R. Church. Second honours went to Mr. C. H. Martin, with interesting blooms of Mrs. White Popham; and third to Mr. G. Denyer, Chatham.

#### INCURVED CUT BLOOMS.

For thirty-six incurved blooms, distinct, in competition for the Holmes Memorial Cup, Mr. W. Higgs, gardener to Mr. J. B. Hankey, Fetcham Park, Fetcham, Leatherhead, was a good first with large, even, and well-finished blooms. Specially good were Mrs. C. Crooks, Sale, Frank Hammond, Edith Hughes, Major Bonafon, Miss Doris Cox, Globe d'Or, J. Agate, Miss Violet Foster, and Pearl Palace. The second prize was secured by Mr. G. J. Hunt, gardener to Mr. Pantia Ralli, Ashstead Park, Epsom, with a good lot of flowers, but not nearly so even as those in the first prize set. Mr. W. Mease came third, showing rather irregularly.

The vase class, for six vases of incurved blooms in six varieties, five blooms in each vase, was an attractive display. In this Mr. Higgs was again in the leading position, showing large and even blooms of Chas. H. Curtis, Nellie Southam, Lady Isobel, Robert Petfield, Mrs. R. C. Kingston, and Hanwell Glory. The second prize was won by Mr. G. J. Hunt, who had very heavy blooms, but less evenly finished than the first lot; and the third by Mr. W. L. Bastin, gardener to Sir Alexander Henderson, Bart., M.P., Faringdon, Berks.

No less than nine competitors were forthcoming in the class for twelve incurved blooms, distinct, Mr. Higgs again leading with a pretty and even lot of heavy blooms. His Topaze Orientale, Ernest Cannell, Globe d'Or, Robert Petfield, Duchess of Fife, Chas. H. Curtis, and Nellie Southam were in capital form. Second honours were secured by Mr. Bastin with heavy but rather uneven blooms; and Mr. C. Lane was third.

In the eight entries for six blooms of one variety of incurved there were some excellent blooms staged. Mr. W. Mease won the first prize with fine examples of Topaze Orientale; and with Duchess of Fife, Mr. C. Crooks, gardener to the Dowager Lady Hindlip, Hadsor, Droitwich, was placed second. The third prize was won by Mr. J. Sandford with good examples of Chas. H. Curtis.

#### TROPHY CLASS.

There was but one entry for the national competition of Chrysanthemum and horticultural societies. This came from the Epsom and District Chrysanthemum Society, and the blooms were contributed by Messrs. W. Higgs and G. Hunt. The Japanese were good and of even form and capital colour, and the incurved were, as might be expected from these two exhibitors, much better than usual.

#### OTHER CLASSES OF CUT BLOOMS.

A good competition was that for twelve blooms, in not less than six varieties, selected from Mr. A. J. Godfrey's introductions in 1901 and 1902, to include certain varieties. In this class Mr. R. Kenyon was in fine form, winning with grand flowers of Sensation, Mafeking Hero, Bessie Godfrey, Masterpiece, H. E. Hayman, Godfrey's Pride, and Kimberley. The second prize was secured by Mr. Charles Ritching, gardener to the Misses Baird, St. James's, West Malvern. These blooms were remarkable for their colour. The third prize was awarded to Mr. Charles Beckett, also for a capital collection.

Three blooms of the same novelties, staged in a vase in this instance, found Mr. A. Jefferies leading, and Mr. A. Shipway second. There were but two entries for twelve reflexed, distinct, Mr. T. Caryer, gardener to Mr. A. G. Meissner, Aldenholme, Weybridge, winning first prize with a pretty lot of blooms. The second prize was secured by Mr. Charles Brown, gardener to Mr. R. Henty, Langley, for a capital lot of blooms, Golden Christine being exceptionally good.

The same number of exhibits was forthcoming in the class for twelve large-flowered Anemones, distinct, Mr. Brown led with good examples. With a useful lot of blooms, Mr. A. Page secured second honours.

In the same order the last two exhibitors appeared in the class for twelve large-flowered Anemones, distinct, from which the Japanese were excluded. The first prize stand contained nicely-developed blooms with high discs.

For six bunches of Anemone Pompons, six blooms in each bunch and arranged in vases, Mr. Chas. Brown again excelled. They were, however, poorer than usual; the best sorts were Mr. Astle and Emily Rowbotham. Mr. J. Barrance was placed second with some interesting blooms.



SINGLE-FLOWERED CHRYSANTHEMUMS AT THE ROYAL GARDENS, KEW.

were the recipients of the praise of all. Third prize was placed to the credit of Mr. James Lock, gardener to the Hon. Mr. Justice Switen-Eady, Otlands Lodge, Weybridge, who had a light and graceful display, but his blooms were far behind the others in point of quality.

#### JAPANESE BLOOMS IN VASES.

The great vase class is usually the most interesting of the series, but on this occasion there were only four competitors. The contest was very keen, especially between the first and second prize winners. Premier honours, however, rested with Mr. F. S. Vallis, Bromham, Chippenham, who staged a very heavy lot of flowers, well set up, but not equal to those of last season. His twelve sorts were: Mme. Herrewége, M. Chenon de Leche, Australie, Mrs. W. Mease, Mr. Louis Remy, grand; Mrs. Barkley, splendid colour; E. Molyneux, Mrs. J. Lewis, W. R. Church, Calvat's 99, very fine; Le Grand Dragon, and Mme. Carnot. Very close, indeed, was the second prize winner, Mr. Charles Beckett, gardener to Sir W. G. Pearce, Bart., Chiltern Lodge, Hungerford, his Loveliness, Sensation, and Mrs. Baskley being superb. Mr. W. C. Merideth, gardener to Mr. George Wilder, Staustead Park, Emsworth, was third.

Of the seven entries for a vase of six Japanese blooms, white, one variety only, Mr. W. Mease, gardener to Mr. A. Tate, Downside, Leatherhead, was placed first with beautiful blooms of Princess Alice de Monaco; Mr. Merideth following with grand flowers of Mme. Gustave Henry; and Mr. J. Sandford, gardener to Mr. J. Wright-Ingle, North Finchley, being third with less finished blooms of the same variety.

For a similar class, confined to yellow sorts, Mr. Henry

A similar class, confined to gardeners and amateurs, saw ten competing, and with lovely blooms of Mrs. G. Mileham, Mr. E. Jones, 51, Bower Street, Bedford, was a good first; Mr. C. H. Martin, gardener to Mrs. Langton, Raymead, Hendon, was second with charming blooms of Lady Hanham; and Mr. A. Robertson, gardener to Mr. F. J. Yarrow, Abbey Road, St. John's Wood, was third with a pretty exhibit.

#### JAPANESE CUT BLOOMS.

The Holmes Memorial Class for forty-eight Japanese blooms was well contested, Mr. F. S. Vallis leading the seven competitors with a very even and bright lot of flowers. Specially good were Mme. Waldeck Rousseau, Mrs. Barkley, Duchess of Sutherland (lovely rich yellow), Kimberley, F. W. Vallis (grand), Mrs. J. Bryant, Mr. T. W. Pockett, Mrs. G. Mileham, and others. A good second was Mr. R. Kenyon, The Gardens, Monkham's, Woodford, who had many superb flowers; Mr. A. Jefferies was third; and Mr. W. Mease, fourth.

Eleven contested the class for twenty-four Japanese blooms, distinct, first prize being secured by Mr. H. Perkins with a very fine lot of flowers, Mrs. J. C. Neville, Countess of Harrowby, Mary Perkins, Henry Perkins, George Laurence, and Lady Mary Conyers being some of his best; with a good, fresh lot of blooms of good colour Mr. W. Mease was second; and Mr. Alexander Smith, gardener to the Lady Superior, The Convent, Roehampton, was third.

There were fifteen exhibits in the class for twelve Japanese blooms, distinct, and it must have been very gratifying for Mr. H. Perkins to find himself occupying the leading position. His blooms of Henry Perkins, Australie, Lady Mary Conyers, George Laurence, and Mrs. George



Mr. Brown was again to the fore in the class for twelve large-flowered Japanese Anemones, distinct. They were a capital set, and proved how charming is this type of the flower with the long tasselled florets. The second prize was won by Mr. J. Barrance, gardener to Mr. G. W. Taylor, Hadley Bourne, Barnet, the quality being rather poor.

There was good competition for nine bunches of Poms, six blooms 'in each bunch. The leading exhibit came from Mr. T. Cayer, who had very pretty blooms, pleasingly arranged. The colours were good, and the exhibit was well disposed in the vases. Mr. A. Page was a good second, though not so even, and Mr. Chas. Brown was third.

Fine, indeed, were the large and small flowered singles. The three entrants made a grand show. The first prize was won by Mr. W. Aldridge, gardener to Mr. G. Lacey, Springfield House, Palmer's Green, N. His blooms of Elsie Neville, Edith (rose-pink), Annie Farrow, Earlwood Glory, and Felix were superb. An excellent second was Mr. A. Dean, gardener to Mr. W. Jordan, Hill House, Palmer's Green. Third prize, Mr. W. C. Pagram, Weybridge.

#### DECORATIVE EXHIBITS.

A good display was made in the competition for three epergnes of Chrysanthemums with suitable foliage, &c., for table decoration. First prize was awarded to Mr. J. French, gardener to Mrs. Barclay, Ambleside, Wimbledon Park. He used yellow and orange flowers and appropriate foliage. Far more artistic was the second prize set which came from Miss C. B. Cole, The Vineyard, Feltham. The third prize exhibit was arranged by Mrs. Green, Harold Wood.

The class for two designs in Chrysanthemums brought out only two displays. The first prize set was very good, and embraced a harp in orange flowers with a cluster of pink tinted blossoms, and a golden ladder with a bow of white Chrysanthemums. This came from Messrs. Harwood Brothers, Balham. Second prize was awarded to Mr. Fred Oliver, 37, Tollington Park, N.

For the silver challenge cups offered by Mr. Percy Waterer, the first one was secured by Mr. D. B. Crane, Archway Road, Highgate, N. This was for a table 6 feet by 3 feet, for cut blooms of a decorative character and of small and medium size, judged for finish of bloom. Large vases of popular Poms and decorative Japanese were freely displayed, and made an interesting and attractive exhibit. Second prize was awarded to Mr. Percy L. Johnson, North Gate, Bishop's Stortford, with larger blooms and as representative, and third prize was secured by Mr. A. Taylor, East Finchley, for a bright lot of flowers.

Another cup from the same source, but in this case open to lady members, found Mrs. D. B. Crane in the premier position. The table was an interesting one, seeing that it represented many of the small-flowered types, and was finished with foliage and other decorative material. Mrs. A. Taylor was second with a bright lot of charming flowers, very close to the leading display.

Bouquets were below the usual standard, the class for two hand bouquets or posies bringing out six competitors. Mr. E. H. Chitty, gardener to Mr. S. Hardy, Cholmeley Lodge, Highgate, was placed first with a pretty idea, but with bad association of colours, Mr. J. French was second, and Mr. W. Grundy third.

#### PLANTS.

These were much below the average of what was the rule in former years. There were a few pretty plants of high merit, and these were seen in a class for four trained specimen plants, any varieties. Mr. E. Eassey, gardener to Mr. F. Bishop, The Grange, Highbury New Park, N., was the only competitor. His umbrella-shaped plants were freely flowered and neatly tied out. Miss Watson, Colonel W. B. Smith, President Nonin, and Commandant Blusset were the varieties exhibited. The same grower was the only exhibitor of four standard-trained specimens, large-flowered varieties. These were not so pleasing, neither were they equal in merit to those in the previous class. Cleopatra, William Tricker, and Eva Knowles were the best of the four.

For four bush specimens there was but one entry, the plants in this instance being exhibited by Mr. W. Noble, gardener to Mr. H. T. Pitt, Rosslyn, 57, Stamford Hill, N.

The trained specimen Poms were very good, although dreadfully formal. The leading exhibit came from Mr. F. Gilbert, gardener to Mr. M. N. Buttanashaw, Kendal House, Blackheath, S.E., Pygmalion, Arbre de Noel, William Westlake, and Toussaint Marist were shown in splendid character; Mr. F. Gilks, gardener to Mr. F. W. Frier, Bylock Hall, Ponder's Eod, was second with a small and good plant.

A silver medal was awarded Mr. Gilks for a plant grown in the form of a crown, the variety being William Westlake (Pompon).

The amateur and single-handed gardener's classes were well filled, and did much to enhance the brilliance of the display.

Fruit and vegetables were well shown, and many prizes in the classes for the latter were offered by Mr. Robert Sydenham, Messrs. Daniels Bros., and others.

#### MISCELLANEOUS EXHIBITS.

Messrs. William Cutbush and Son, Highgate, N., had a charming group of miscellaneous flowering plants, such as Azaleas, Carnations, Spiraeas, Heaths, Lilliums, &c. Silver-gilt medal.

Messrs. W. Wood and Son, Wood Green, N., exhibited horticultural sundries in variety; for instance, artificial manures, lawn mowers, orchid baskets, peat, &c.

Messrs. D. Dowell and Co., Hammersmith, displayed sundries; as also did Mr. J. George, 14, Redgrave Road, Putney.

Messrs. H. Cannell and Sons, Swanley, Kent, contributed a very handsome table of hardy fruit; the Apples were well coloured and in great variety, and the arrangement, though simple, was very effective. Silver-gilt medal.

Messrs. Daniels Brothers, Norwich, obtained a silver-gilt medal for a collection of vegetables that was much admired. The Onions and Leeks were grand.

Messrs. Pearce and Co., Holloway Road, N., showed some excellent little Chrysanthemum houses, frames, and heating apparatus.

The Ichthemio Guano Company, Limited, Ipswich, had a tastefully arranged exhibit of their specialities.

Mr. H. J. Jones, Kyeocroft Nursery, Lewisham, obtained a large gold medal for a magnificent bank of Chrysanthemums, pleasingly arranged with the addition of foliage plants. Some of the blooms were very fine, notably Miss Mildred Ware, Matthew Smith, Florence Molyneux, and others.

Messrs. B. S. Williams and Son, Upper Holloway, N., showed Orchids and miscellaneous stove plants in excellent variety. Silver-gilt medal.

Hobbies, Limited, Dereham, made a beautiful display with Chrysanthemums, Roses, and Pelargoniums, all most tastefully arranged together. Gold medal.

Messrs. J. Hill and Son, Barrowfield Nurseries, Lower Edmonton, were given a silver-gilt medal for a really splendid lot of Ferns; all showed most skilful culture.

Messrs. H. Cannell and Sons, Swanley, had some very good cut blooms of Chrysanthemums on view, as well as a brilliant display of their unrivalled Pelargoniums, Canoas, and Begonias. Gold medal.

Messrs. Isaac Hulse and Son, Westbury-on-Trym, Bristol, had a display of Violets in many lovely varieties.

Messrs. George Boyes and Co., Aylestone Nurseries, Leicester, showed some very good Carnations, pot plants, and cut flowers. Silver medal.

Mr. W. J. Godfrey, Exmouth, Devon, arranged a remarkably fine display of large Chrysanthemum blooms, many of the varieties included being of his own raising. We noticed Sensation, F. S. Vallis, Exmouth Crimson, Loveliness, Nellie Stevens, Wilfred Godfrey, and others, all really splendid flowers. Gold medal.

Messrs. T. Rochford and Sons, Broxbourne, exhibited a collection of retarded plants in bloom, including Lilliums, Spiraeas, Lilies of the Valley, &c., all grandly grown. Gold medal.

Mr. J. Spink, Walthamstow, was given a silver-gilt medal for a good group of Chrysanthemums.

Messrs. J. Peed and Sons, West Norwood, showed a group of Chrysanthemums and various foliage plants.

Mr. John Russell, Richmond, Surrey, sent a collection of Apples and Pears of good quality. Mr. Russell also had a beautiful lot of Eurytalia variegata, Aucubas, and Crataegus splendidly buried. Silver medal.

Hardy fruit was shown by Messrs. J. Laing and Sons, Forest Hill, S.E. Silver medal.

Mr. W. Seward, Hanwell, showed several new English seedling Chrysanthemums, several of which obtained awards of merit.

Mr. J. W. Cole, Peterborough, showed Chrysanthemum Mr. E. A. Peak, a white seedling from Mrs. Weeks.

Mr. Vincent Slade, Taunton, showed zonal Pelargoniums.

Mr. W. J. Brown, Stamford, arranged a pretty table of hardy fruit. Silver-gilt medal.

#### ROYAL HORTICULTURAL SOCIETY.

##### DRILL HALL MEETING.

##### FRUIT COMMITTEE.

Present: Mr. George Bunyard (chairman), and Messrs. H. Esling, W. Bates, S. Mortimer, A. Dean, C. Kelf, W. Pope, M. Gleeson, G. G. Miles, J. Basham, F. L. Lane, G. Norman, J. Smith, James H. Veitch, G. Wythes, H. Somers Rivers, W. H. Divers, and J. H. Goodacre.

The Hogg memorial medal for fruit was awarded to His Majesty the King for some fourteen splendid Pine-apples. The fruits were from the Royal Gardens, Windsor (gardener, Mr. A. MacKellar).

The Hogg memorial medal for fruit was also awarded to the Duke of Portland, Belvoir Castle (gardener, Mr. W. H. Divers), for a collection of fruit. There were some sixty dishes of Apples and about the same of Pears, needless to say in all the best kinds. Warner's King, Bramley's Seedling, and Gascoigne's Seedling among Apples were superb, while the Pears generally were very fine samples; indeed, the entire collection was in a high degree excellent.

Thirteen fruits of enormous size of Belle de Jersey Pears were grown by Mr. J. G. Romril, Longville Court, Jersey, and exhibited by H. Beecher, Esq., Jersey. The largest fruit weighed 3lb. 11oz., many others were nearly 3lb. in weight. Silver Banksian medal.

From the Horticultural College, Swanley, came a collection of 'plantation-grown fruit,' the Apples and Pears being of a good sample generally. Peasgood's Nonsuch was very fine and splendidly coloured. Vegetables also came from the same source. Silver Knightian medal.

Strawberry St. Joseph in pots was sent by Mr. Perkins, Greenlands, Henley-on-Thames.

From the Lady Warwick Hotel came preserved fruits in bottles, such as Raspberries, Currants, Plums, Cherries, Rhubarb, Gooseberries, &c. An example of the 'steriliser' was also shown in which the fruits are prepared.

##### AWARDS OF MERIT.

Strawberry St. Joseph. Shown by A. W. Sutton, Esq., Bucklebury Place, Woolhampton.

Rhubarb Topp's Winter. Shown by Messrs. Veitch and Sons, Chelsea. The stems are long, slender, and of good colour.

Grape Imperial Black, shown by the Earl of Harrington, Elvaston Castle Gardens, Derby (gardener, Mr. J. H. Goodacre).

##### ORCHID COMMITTEE.

Present: Harry J. Veitch, Esq. (chairman), Messrs. J. B. Ourney Fowler, Henry Little, J. Wilson Potter, F. W. Ashton, W. H. White, W. H. Young, W. Boxall, H. A. Tracy, J. W. O'Dell, E. Hill, G. F. Moore, J. Cypher, J. Charlesworth, F. A. Rehder, James Douglas, H. Ballantine, and de B. Crawshaw.

A cultural certificate was awarded to a finely-grown plant of Dendrobium formosum giganteum. From Captain Holford, Tetbury, Gloucestershire.

Messrs. J. Veitch and Sons contributed many interesting plants, mostly hybrid Cattleyas and Laelio-Cattleyas. Of the first: Portia, a rich coloured flower in two shades was shown; Ella, a broozy flower with rich purple lip; Mrs. J. W. Whiteley, a rosy lilac with golden blotch internally; C. Mantini, very free; and Laelio-Cattleya dominiana langleyensis; several very pretty Cypripediums, C. memnon, C. Charlesworthii, C. spicerianum, C. Baron Schroeder, C. arthurianum, and C. a. pulchellum being noticeable. Silver Flora medal.

From Tetbury Captain Holford sent Dendrobium formosum giganteum, with fine flowering sprays, for which a cultural commendation was given. D. Phalaenopsis var. the pretty Vanda kimballiana traced with graceful sprays of blossoms, and Cattleya labiata Westonbirt var. Vanda sanderiana was also shown.

J. Bradshaw, Esq., The Grange, Southgate, showed a superb lot of Cattleyas, many being C. labiata vars., together with Laelio-Cattleyas in charming variety; also C. aurea and a pretty hybrid Odontoglossum. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill, had many good things, e.g., Cypripedium insigne Sander, Cattleya labiata amesiana, very chaste; C. Mantini superbum, Oncidium tigrinum, Pleiones, Cypripedium leeanum var. C. Niobe, &c. were also shown.

A small group of Cattleyas also came from J. Gurney Fowler, Esq., South Woodford, in which Cattleyas played a chief part, one huge plant bearing some ten monster heads of bloom.

Quite a charming lot of Cypripedium insigne in variety were from C. H. Ferling, Esq., Southgate, and included Sander and the choicer forms generally, together with several fine plants of C. spicerianum and others. C. Charlesworthii was also in strong force. The whole of the examples were well grown and flowered. Silver Flora medal.

Messrs. Sander and Sons had Cypripedium Coronis, C. leeanum giganteum x C. lynchianum, a noble flower, in which the dorsal sepal is very broadly margined white, C. Niobe splendens, C. Zenobia, Cattleya aurea, Dendrobium thysiflorum, and others.

Jeremiah Coleman, Esq., Reigate, had a beautiful lot of Cattleyas in variety, chiefly C. labiata var., with C. bowringiana, Dendrobium Phalaenopsis, &c.

Mr. James Cypher, Cheltenham, also had a beautiful lot of Cypripediums, such as Sander, leeanum, virginialis, Chantini, and an insigne variety named Harefield Hall, a really magnificent flower, broadly margined white in the dorsal sepal, and strongly blotched brown on a golden ground.

A botanical certificate was awarded to Cynorchis purpurascens, a most pleasing flower with ample foliage. From Messrs. Sander and Sons, St. Albans.

#### CERTIFICATED ORCHIDS.

The following received an award of merit:—  
Cattleya Mrs. Pitt.—Sepals soft rose-pink, labellum golden-orange, with white margin; very striking. Shown by Mr. H. T. Pitt, Stamford Hill.

Oncidium Mantini superbum.—Brown and chocolate, the lower sepal freely blotched on a golden ground. Shown by F. Wellesley, Esq., Woking (gardener, Mr. J. Gilbert).

Cypripedium Thalia.—From C. insigne Chantini and C. x Baron Schroeder. A fine form of insigne with a handsome, well-coloured dorsal sepal. Shown by Messrs. James Veitch and Sons.

Cypripedium Evelyn Ames superbum.—Resulting from C. leeanum giganteum x C. Calypso var. Oakwood. A magnificent flower, the dorsal sepal broadly margined with white and lined with purplish crimson; lip and sepals glossy brown. Shown by Messrs. Sander and Sons, St. Albans.

Cypripedium transversum superbum (C. chamberlainianum x C. rothschildianum).—Of the former parent there is ample evidence in the hybrid, with its wide side lobes blotched and hairy, and with a slight curve. The dorsal sepal is green, with dark lines; the pouch of a reddish purple. The spike carried one flower and two buds. From Messrs. Sander and Sons, St. Albans.

[Report of the Floral Committee unavoidably held over.]

## ANSWERS

### TO CORRESPONDENTS.

**Names of Plants.**—*M. E. H.*—The white-flowered shrub is *Abelia chinensis*; the other specimen was very much withered, but appears to be *Cerastostigma plumbaginoides* (syn. *Plumbago Larpetae*). The reason the flowers do not open as they should is possibly due to the plants being starved; you might try planting them out in a warm sheltered corner in good soil, or if you prefer to have your plants in pots, repot into rich loamy soil.—*Mrs. Riddell-Webster*.—1, *Ligustrum japonicum*; 2, *Crocus asturicus*.

**Names of Fruits.**—*H. P. K.*—1 and 3, *Dumelow's Seedling* (Wellington); 4, *Golden Noble*; 5, *Northern Greening*; 6, *Kerry Pippin*.—*J. M.*—1 and 3, *Flander's Pippin*; 2, *Malster*; 3, *Cox's Pomona*; 4, *Humbleton deus ans*; 5, *Pennington Seedling*; 6, *Old Hawthornden*; 7, *Tibbett's Pearmain*.—*Constant Reader*.—A, *Swan's Egg*; B, *Beurré Diel*; C, *Josephine de Malines*; D, *Beurré de Capiaumont*; E, *Beurré Rance*; F, small round *Orange Beurré*; G, small long, bad example, not recognised; and C and E are good quality Pears, the others are only second-rate.

**The Gardeners' Company.**—Sir Marcus Samuel, Lord Mayor-elect, will be Master of the Worshipful Company of Gardeners during the next year.



# THE GARDEN

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[NOVEMBER 15, 1902

## ROOF GARDENING.

**D**WELLERS in cities and large towns are usually supposed to be debarred from participating in the delights of gardening by reason of their position and environment, yet we shall hope to show that since roof gardening has been proved to be possible the citizen without a square yard of ground may, if he will, enjoy the sweets of home-grown flowers equally with his country cousin. If we are to judge from the charming illustrations of roof gardening in New York, that many from time to time must have seen, we have yet much to learn as to the possibilities of this form of gardening. It may be that the roofs of American houses are so built as to offer greater facilities to the gardener in his endeavours to transform their barren dullness into a picture of living beauty, and this to a certain extent we believe to be true. Nevertheless, if we take roof gardening in its widest sense, and under this title allow the inclusion of verandahs and balconies, of which many a house can boast that does not possess a roof suitable for gardening, in our metropolis alone there must be thousands of opportunities for roof gardening, and it is safe to say that most of them are ignored.

To those so fortunate as to live both in town and country at different periods of the year, and especially those who are fond of their flowers, roof gardening should appeal, because it enables them still to enjoy their favourite recreation ; that it is confined to somewhat narrower limits should not diminish but rather tend, perhaps, to increase its interest. To those who are obliged to spend week in week out in the town, roof gardening ought to have still greater charms and fuller possibilities. There are those who think that practically no plants will grow satisfactorily in large towns, because of the smoke-laden and foggy atmosphere, yet were such persons only to attempt the culture of plants most suitable a pleasant surprise would be in store for them. It is true that he who attempts gardening in London or any other city must be prepared to lose a greater percentage of plants than if these were grown under more favourable conditions in the country.

It almost goes without saying that in roof gardening the cultivation of plants will have to be carried out with the help of pots, boxes, barrels, and tubs. It would neither be satisfactory nor feasible to have them permanently

planted in beds of soil, and, besides being so much more convenient and better suited to the well-being of the plants, the use of these various articles gives one the opportunity of completely altering the arrangement of the roof garden year by year. It is not advisable to make use of many perennial plants, and those chosen should, if possible, be evergreen. Annuals will succeed better as a rule, will give less trouble, and will provide a more brilliant and varied display of flowers. When annuals are largely employed, the boxes, tubs, &c., can be cleared in the autumn and prepared for the reception of bulbs, and what dreams of delightful spring flowers does not the mention of bulbs bring to the mind of the town gardener ! The roof garden perhaps would lose its best opportunities were the planting of bulbs to be neglected.

So many lovely bulbous flowers can be easily grown even in a town. To say nothing of Crocuses, Snowdrops, Tulips, Daffodils, and Hyacinths, which everyone knows and grows, there are the Scillas, Anemones, Winter Aconites, Ranunculi, the lovely early-flowering Irises, and Muscari, all in their numerous species and varieties. As most of these may be lifted in the spring and stored away till autumn to make room for the plants which are to keep the roof garden gay throughout summer, they are particularly well suited to this purpose. Bulbs may be grown in any of the receptacles we have mentioned, although they will look by far the best in shallow boxes.

The cultivation of plants in barrels is one of the most delightful attributes of roof gardening. We have seen some beautiful pictures, notably in the gardens at St. Fagans, Glamorgan, produced by plants growing in barrels, the latter being completely smothered with foliage and flowers ; it would be almost impossible to say, did one not already know, that the plants were growing in such a common place and easily procured article. During April and May it is not difficult to have the Rock Cresses in white, purple, and other colours (*Arabis albida*, *Aubrietias Leichtlinii*, and *græca*) tumbling down the sides of the barrel and covering this with cascades of beautiful blossom. Other charming flowers that from March to June will make one forget there are barrels beneath them are those lovely Pinks (*Dianthus caesius* and *D. fimbriatus*), *Saxifraga hypnoides*, *Gypsophylla cerastoides*, *Iberis correaefolia* and *I. sempervirens* (Candytufts), the ever-welcome *Myosotis dissitiflora*, and *Veronica repens* and *V. rupestris*. From June

onwards we have the pretty Campanulas, *C. carpatica* and *C. muralis*, as well as the *Centranthus*, while *Erigeron mucronatus*, *Lobelia paxtoniana*, Ivy-leaved Geraniums, Carnations, Verbenas, and *Heliotrope* will ensure a wealth of bright colour for many weeks to come.

For deep boxes one might use Carnations, Fuchsias, and Ivy-leaved Geraniums ; all are extremely suitable by reason of their loose habit of growth ; they tumble about in a charming manner and transform the boxes into masses of pleasing flower and foliage. In shallow boxes one might plant *Lobelia*, *Mesembryanthemum*, *Portulaca*, *Nemesia*, &c., and in tubs what could be more appropriate than such good garden plants as *Choisya ternata*, Myrtles, sweet-scented *Verbena*, *Spiræa Bumalda*, *S. Anthony Waterer*, and the Bay Laurel. With such a wealth of suitable material at hand, which, moreover, has the merit of being inexpensive and easily grown, those to whom its charms appeal should have no difficulty in successfully carrying out this gardening on the roof, so greatly neglected, yet so full of possibilities.

## RIVIERA NOTES.

RIVIERA gardens are this year a striking contrast to those left behind in the North of England, where the marks of a cold, ungenial season were only too evident in belated blooms and weather-beaten plants. The extreme heat of part of the summer here, followed by a heavy downpour of rain in early October, has produced a flush of autumn flowers that is amazing to the newly arrived, who find that for the present these semi-tropical mornings entirely preclude all idea of autumn. The crop of winter Roses is, however, not promising. The autumn rains, though late in arriving, found the Roses less ready to respond to them, as the spring rains continued till late in June, when the plants should have been resting ; hence this very poor look-out. Carnations need cooler weather after the trying heat which the Palms and semi-tropical plants have so enjoyed, as also the tender climbing plants such as *Ipomæas*, *Lantanas*, *Minas*, and *Heliotropes*, which are in perfection just now. The wreaths of sky-blue *Ipomæa* and cream and crimson spikes of *Mina lobata* are "a sight for sore eyes" in the morning sunshine, with *Zinnias*, *Plumbagos*, *Senecios*, and countless other flowering plants around. *Perimonium discolor* is a very dainty little shrub now in flower. Its bouquets of neat golden Daisies and its pointed, slender leaves make it noticeable even in such a mass of colour. Shrubby *Begonia Le Vesuve* is exceedingly pretty in the shade of a group of Bananas ; it should be



a good greenhouse plant, and is a change from the too-pervading scarlet of *Salvia splendens*. The great Tree *Salvia* (*S. frutescens*) is just in beauty; its heavy heads of blossom weigh down the tall stems rich in luxuriant foliage. The Tree Dahlias, too, are just out, and receive all the admiration they truly deserve where white or cool-coloured flowers are so wanting. Irises are well to the fore with *I. alata*, *I. stylosa*, and the winter-flowering form of *I. germanica* in good flower. The Yuccas, now in abundant flower everywhere, look extra well with a groundwork of this useful Iris.

Persimmons are splendidly decorative just now with their crimson leaves and fruit of many shades of orange and red, and the baskets of them shown at the flower show at Nice last week were tempting indeed to the eye, though I doubt if as yet they are fit for table. As usual, the Chrysanthemum show here was a very poor thing. In the first place, it is far too hot for first-rate flowers; and, secondly, they are not grown really well. There were, however, some shown grafted on the Paris Daisy, well known as *Anthemis*, and its dwarfing effect on such a variety as *Mme. Carnot* makes it worth recording. One plant not 3 feet high bore five good blooms. There is one excellent yellow, *Paul Sain*, which is a first-rate bush plant, and one white, with its petals cut up at the buds into a tassel, is quite worthy of its name, *Inimitable*. It may not be new to all, but it is both distinct and good.

EDWARD H. WOODALL.

## EDITOR'S TABLE.

### MALMAISON CARNATIONS.

From Lady Tweedmouth, Guisachan, Beaulieu, N.B., we receive some magnificent blooms of Malmaison Carnations. In an accompanying note Lady Tweedmouth says: "Just a few Malmaisons for the Editor's table, to show what can be grown in the far north. The plants at present are one mass of bloom, and this is likely to continue for some time to come." The varieties sent were *Beauty of Guisachan*, a lovely pale pink, delicately striped with red; *Princess of Wales*, a rich deep pink; and *Sir Charles Freemantle*, red, with a faint tinge of salmon colouring.

### FROM A HEREFORD GARDEN.

Mr. H. Southall, The Graig, Ross, Herefordshire, sends "a few cut flowers gathered this afternoon (November 7), as a proof of the unusual character of the season. The tenderest out of door plants, such as Dahlias, Nasturtiums, and *Cistus* are still uninjured, although they are occasionally over as early as September 28. *Kniphofia maxima globosa* is the latest of these to flower. There are still some two dozen handsome spikes left. *Lilium auratum* is out of doors and unprotected. Summer and autumn Chrysanthemums are in full beauty still, and overlapping the later November kinds. *Bignonia radicans*, *Schizostylis coccinea*, *Cistus crispus*, and many other flowers, including Dahlias, are still as gay as ever. The tints of the Horse Chestnuts, Maples, and Sumachs have been a good contrast to the adjoining pines, whilst *Vitis purpurea* and *V. Coignetiae* have vied with *Ampelopsis Veitchii* in their rich colouring. Other trees, such as the Judas Tree, *Paulownia imperialis*, *Polygonum cuspidatum*, *Acer colchicum rubrum*, Guelder Roses, *Casalpinia japonica*, &c., have blended most effectively."

### NEW MICHAELMAS DAISIES.

Mr. Amos Perry, Winchmore Hill, N., has sent us a splendid selection of these beautiful autumn flowers. Many varieties are represented. Mr. Perry says that all have been thoroughly proved and are improvements upon existing varieties. We give a list of them with brief descriptions:—

*Aster Amellus* Nancy Perry is one of the best;

the colour is a rich lavender-blue, quite an unique shade; the plant grows about 2½ feet high.

*A. A. Fringed Beauty* is quite a new break, in colour the flowers are a rich violet, and the ray florets are deeply cut, giving the former a pretty fringed appearance.

*A. A. Perry's Dwarf* is another distinct variety, growing barely 9 inches high; it has a pretty branching habit and will be suitable for the rockery or edge of border.

*A. A. Perry's Favourite* was well described in THE GARDEN recently, and is probably the finest pink of this section. It originated at Winchmore Hill five years ago.

*A. A. Rosy Gem* is another very distinct colour, a rich rosy lavender. The plant reaches 2 feet high,



COREOPSIS

GRANDIFLORA.

has pretty branching growth, and remains in flower a long time.

*A. A. Giant*, growing fully 3 feet high, has a loose branching habit; flowers violet-blue.

*A. turbinellus elegans* is a distinct form raised at Winchmore Hill some years ago; the habit is identical with that of *turbinellus*, the flowers opening pure white and changing to rosy lilac.

*A. Novi-Belgii Perry's White* is one of the finest whites, flowers of great substance, pure white, fully 2½ inches across, and lasting a long time; of sturdy habit, about 3 feet high; its great value lies in the flowers remaining white.

One of the finest and most distinct seedlings this year Mr. Perry considers to be

*A. Novi-Belgii "The Garden,"* described last week. The plants being well furnished to the ground, he says have been a splendid feature.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

#### CHRYSANTHEMUM SHOWS.

November 15.—Blackburn, Chorley, Bradford (each two days), and Burton-on-Trent.

November 17.—Meeting of the National Chrysanthemum Society's floral committee.

November 18.—Royal Horticultural Society's Drill Hall meeting.

November 19.—South Shields and Northern counties (two days).

November 20.—Leamington, Warwick and district (three days at Leamington).

**The Horticultural Hall.**—Just now, when interest is being centred upon the project of a Horticultural Hall for London, it may be serviceable to some of your readers to direct attention to the recently published "Transactions of the Massachusetts Horticultural Society for the year 1901, Part II." In it they will find an account of the dedication of the new Horticultural Hall recently erected in Boston by that society, with a photographic view of the exterior. Plans and a description of the building are also given. A very good picture of the interior of the new library appears in the same number.—C. H. P.

**Coreopsis grandiflora.**—This is one of the most useful plants for the mixed border, the large bright yellow flowers are produced in profusion at the end of May, and continue to appear throughout the summer. This *Coreopsis* will flower from seed sown the same year, though many gardeners treat it as a biennial. Sow the seed early in April, and if the soil is rich and the plants are not crowded a glorious display of flowers will result in the autumn. It is one of the brightest and most graceful flowers of the garden.

**Horticulturists and the sale of poison.**—The Departmental Committee which was appointed to consider the sale of articles containing poison used in agriculture and horticulture has nearly finished its labours. The draft report which has been prepared has been practically approved. It is understood that it will recommend the addition of a third schedule to the Pharmacy Act, by which persons other than are authorised by the Pharmacy Acts will be licensed to sell articles containing poisons that are used in agriculture and horticulture, subject to regulations to be drawn up by the Privy Council. These regulations will, it is expected, provide that the articles shall be in special bottles and have special labels, and their general effect will be that articles like sheep-dip and insecticide will be freed from some of the restrictions that now exist.—*Standard*.

**The Royal Gardeners' Orphan Fund.**—The Right Hon. the Earl Carrington has kindly consented to preside at the next anniversary festival of this charity, which will take place at the Hotel Cecil, on Tuesday, May 5, 1903.

**Valuable to young gardeners.**—The fees usually charged in horticultural colleges are beyond the means of the ordinary gardener, who is none the less conscious that his chances of passing the Royal Horticultural Society's examination would be greater if he could supplement his practical training by spending a short period in the laboratories of a horticultural college. At Reading a limited number of men of this class are granted a course of free instruction for six months and a maintenance allowance, together with railway fare to and from Reading. They are required to devote their time between work in the laboratories to preparation for the Royal Horticultural Society's examination and in the college gardens at practical work under the direction of Mr. Patterson. Particulars may be obtained from the registrar.

**The Gardeners' Company.**—Sir Marcus Samuel, Lord Mayor of London, is the present Master of the Worshipful Company of Gardeners. It was mentioned in our last issue that the Lord Mayor would be Master during the coming year.

**Royal Horticultural Society.**—The next fruit and flower show of this society will be held on Tuesday next in the Drill Hall, Buckingham



Gate, Westminster, 1—4 p.m. A lecture on "Spraying Fruit Trees and Packing Apples, as practised in Canada," will be given by Mr. Cecil H. Hooper, F.R.H.S., at three o'clock. At a general meeting, held on Tuesday, the 4th inst., forty new Fellows were elected, amongst them being Lady Julia Follett, Major Charles A. Leslie, Major George A. Marshall, and the Hon. Mrs. Harbord, making a total of 1,045 elected since the beginning of the present year. The society's annual examination in the principles and practice of horticulture will be held on Wednesday, April 22, 1903. Full particulars may be obtained by sending a stamped and directed envelope to the society's offices, 117, Victoria Street, London, S.W. The questions set at all the previous examinations are now published, price 1s. complete.

**The Beauty of grouping.**—A misprint occurs in my notes in THE GARDEN of October 25. I intended to say that those of us who own small gardens, while making general effect our chief consideration, might reserve one large bed for those species which give us the most pleasure. The writer of the interesting leader in the same number warns us that in placing short plants in front and tall plants behind we must carefully avoid having too regular and even a slope. It seems to me that any precaution of this kind is needless, because different seasons—with rainfall and sunshine varying in quantity—have such different effects upon different species that we could not, even if we would, obtain a slope like a slate roof.—F. A. STURGE.

**Crocus speciosus.**—In an old number of THE GARDEN a writer says that Colchicum and Crocus become deeper every year, and should therefore be dug up every few years. A wise gardening friend of mine rather questions this statement, but my Crocus speciosus in grass, which have been very pretty for years, are gradually disappearing, and I should be very glad to know your experience.—F. A. STURGE, *Coed Efa, near Wrexham.*

**Rose Mme. Jules Grolez.**—I have to thank my friend Mr. H. E. Molyneux and your other correspondents for their notes anent the scent of this Rose. I would point out that this garden is *not* by any means a warm one, and as the bed containing Mme. Jules Grolez is placed on a piece of ground sloping to the north, the position and the extremely cold summer have undoubtedly affected the fragrance of this splendid variety. Mr. Molyneux's garden is a warm and sheltered one, mine is, unfortunately, just the reverse.—ARTHUR R. GOODWIN, *Kidderminster.*

My experience with the above Rose is that it is sometimes very pleasingly, though not powerfully, fragrant, and at other times possesses but a very faint odour, a trait that is not uncommon with many other Roses. I have even found Rose Maman Cochet not entirely devoid of scent on one or two occasions. Strong winds and heavy rains are apt to destroy the fragrance of flowers considerably, as some particular state of the atmosphere, on the other hand, is instrumental in increasing this. M. Guillot's lovely Hybrid Tea is not only fragrant with me in the garden, but a strong-growing, most free-flowering variety, and especially beautiful in the bud and half open stage.—GEORGE H. ELLWANGER, *Rochester, N.Y.*

**Peach Thames Bank.**—I am pleased to see this handsome late Peach brought under notice by your correspondent "S. H. B." (page 281), and to find from his remarks that it is still under cultivation, for, unlike your correspondent, I unfortunately overlooked the dish exhibited at the Crystal Palace fruit show. It deserves all that "S. H. B." says in its favour, and is, in my opinion, the best of the late yellow fleshed varieties, notwithstanding the undoubted usefulness of Exquisite as a late Peach. Its large size—many of its fruits reaching 11 inches in circumference—and its rich yellow skin, suffused and streaked with crimson on the sunny side, give it a remarkably handsome appearance, which, together with its good flavour, ought to have secured for it a far better position than it evidently ever attained amongst cultivators and exhibitors of fruit. I found a young tree of Thames Bank here, planted in a late house when I

took charge of these gardens some 29 years since, and observing its comparatively small, delicate unhealthy looking blossoms, was prepared for a bad set of fruit; however, the apparent weakness subsequently proved to be natural, for the tree possessed a good constitution, and always set a good crop. So pleased was I with this variety for late use that on more than one occasion I drew attention to its good qualities in the gardening papers, and exhibited it at one of the Royal Horticultural Society's shows at South Kensington. Our old tree has now been uprooted, and we have failed to replace it or find the name of Thames Bank in any fruit catalogue, but I hope that "S. H. B.'s" note may cause it to be looked up, for it is certainly a better Peach than are many late ones enumerated in the catalogues. Perhaps the exhibitor of the dish staged at the Crystal Palace will place some buds in the hands of a nurseryman, who may be willing to work up a stock of young trees. I recollect speaking to the late Mr. Rust about this Peach, and I think he stated that it was first distributed by Messrs. Osborne.—T. COOMBER, *Monmouth.*

**Rose Ella Gordon (H. P.).**—This will probably be a record year for autumn Roses, and it is really wonderful to see the Rose garden just now (November 3). We could cut hundreds of splendid flowers. One of the finest of the H. P.'s this year is Ella Gordon. It is always good in late autumn, in fact I think it is one of the best red H. P.'s for this season. Resembling its parent, Mme. Victor Verdier, this splendid variety differs in its more vigorous growth and more perfectly formed flowers. The petals are smooth, very substantial, and of symmetrical globular shape. It is just the Rose for a bold bed, the fine towering shoots crowned with blossom, being very conspicuous in the distance. As a vigorous headed standard, or as a pot Rose Ella Gordon is alike most useful.—P.

**Gomphia decora.**—Apart from Gomphia Theophrasta (noted on page 191) as being in flower in the Palm house at Kew, there is a second species—G. decora—which each recurring autumn used to form an attractive feature in the same structure, and it is doubtless still there. This species is a native of Brazil, from where it was introduced in 1868. In its native country it attains the dimensions of a tree, but will flower freely here as a pot plant. In this way it forms a freely branched specimen clothed with broadly lanceolate leaves of a pleasing shade of green and leathery in texture. The flowers, which are borne in closely packed spikes, are individually about an inch in diameter and of a bright yellow colour. The flowering season of this Gomphia usually extends from August to nearly Christmas, a period which is not very prolific of bloom among stove plants in general. Its cultural requirements are not at all exacting, succeeding as it does under the treatment given to the general run of stove plants. When once established in good sized pots it will stand for years and flower well without repotting. Cuttings of the half ripened shoots are not at all difficult to strike if put into pots of sandy soil in a close propagating case in the spring and early summer months. Besides the specific name of decora it is also known as Gomphia olivæformis.—T.

**Ageratums.**—Shades of blue are none too plentiful in the flower garden during summer and autumn, and having regard to this and the general popularity of the colour, I think that Ageratums are deserving of more extended culture. In planning formal beds for next year it would be well to consider the dwarf kinds of Ageratum, for their colour blends well with the majority of summer flowering plants usually made use of for this style of bedding. Ageratums are of extremely easy cultivation, and several really good dwarf profuse flowering varieties have been introduced of late years which should help to popularise this plant as a bedder. They are readily increased by cuttings taken from the plants in autumn. Our plan is to insert ten cuttings or so into a 6-inch pot filled with light sandy soil and plunge these in fibre on a mild hot-bed. When rooted they are placed on shelves in a temperate house near the roof glass for the winter. In February we commence propagating

from them, and by the time it is safe to bed out we have sufficient plants to fill the beds. During the past mild autumn the flowers of Ageratum have survived all others in the Italian Garden here. The plants were cleared from the beds at the end of October, being then full of blossom, whilst all other subjects were past their best. No special treatment is necessary for Ageratums, they will thrive in almost any soil. Strong, well hardened plants should, however, be available at bedding time, and afford abundant supplies of water during dry weather, and give a mulching of cocoanut fibre or spent Mushroom bed manure.—H. T. MARTIN, *Stoneleigh.*

**Rose Papa Lambert.**—This fine showy Hybrid Tea seems to improve with acquaintance. The deep very double flowers are splendid in autumn as they are in summer, the pure rose colour becoming much intensified at this late season. It is deliciously fragrant, and altogether Papa Lambert is a Rose that must be planted in every well ordered collection. The last few days of October were remarkable for their Roses, and none was better as a show bloom than Papa Lambert. It is a low growing kind, and should be given a prominent position near the front. It is a great mistake to grow such a Rose in standard form, its more fitting style being the bush. The plants of rather low growth harmonise well with Lady Mary Fitzwilliam, White Lady, and Tennyson. For pot culture it is superb, the fine bold flowers being much admired.—P.

**Notes from Baden-Baden.**—For covering certain portions of rockwork Linaria pallida is a capital plant. The leaves are smaller and of a deeper green than those of L. Cymbalaria, but its merit rests in the flowers, which are three times as large, much brighter in colour than the latter, a shining mauve-purple. It is cut down in cold winters, but the roots remain healthy, and push with energy in spring; the freely-produced flowers continue until November. The Plattensee variety of Sternbergia lutea, which is in full leaf, and flowers from August until October, has much larger flowers than the typical plant. During summer and autumn Lavatera cachemiriana was showy; it is an elegant half shrubby plant, about 1½ metres high, and lavishly produces hundreds of large lustrous pale rose flowers. Owing to adverse weather many showy plants, especially bulbs, have failed to flower well, and now it is too cold.—MAX LEICHTLIN, *Baden-Baden.*

**Aster salicifolius.**—Allow me to call attention to a late and very pretty but little known North American Aster, which is hardly yet (November 8) in full bloom. The main stems are few and stout, 2½ feet long, and bend over with the weight of the flowers, so that they all show on one side. The branches begin a few inches from the base, and are crowded with small shoots growing from the axil of every leaf, the whole forming such a compact mass of pink flowers as I have seldom seen in any Aster. The growth at the base is so close that a plant even at two or three years old is difficult to divide, but the stems root easily when pulled off close to the ground. I had it a few years ago from a gardener near Aix, in Savoy, from which it is called by me Tresserve. It has been submitted to a good authority, who, after comparing it with the types in Kew Herbarium, pronounces it to be undoubtedly Aster salicifolius, of Aiton's "Hortus Kewensis," so we may conclude that it was grown in Kew Gardens soon after the middle of the eighteenth century. It is now included in the "Kew Hand List." Asa Gray says it is a native from Canada to Texas, being very plentiful in the valley of the Mississippi. Many Asters which extend over a wide range vary much in stature and colour, and this Tresserve form may perhaps be more attractive than others of the same species; but as a very late garden ornament I have hardly said enough in its praise.—C. WOLLEY-DOD, *Edge Hall, Malpas.*

**New forms of perennial Asters.**—When I read the editorial note on page 258 about the desirability of getting improved forms of Asters of the Amellus type, I was struck once more by the diversity of personal taste in flowers. My own aim would be to produce small-flowered



types resembling the cordifolius set. These always seem to me to be so graceful and attractive, and such a contrast to the general run of autumn flowers. I want to get a pink cordifolius, and as a step that way I have succeeded in getting a small-flowered bushy pink sort that I hope to raise some seedlings from with a taller habit. The flowers are too large as yet for me, although it is a pretty sort, quite distinct from the pink *A. levigatus*.—T. J. W.

**Crocus asturicus atropurpureus.** It is quite amusing to find what a profound ignorance exists, even among people who devote great attention to gardening, of these autumn-blooming bulbs. I am surrounded by garden enthusiasts, and yet when I produce a few blooms of this pretty dark purple sort they are greeted with astonishment, and I am asked how I manage to get them at this time of the year. I am hardly believed when I say they are growing in the ordinary border with as little care and attention as the commonest flower, but of course it is so. Pretty as *Crocus speciosus* is, its blue is cold compared with the warm deep purple of this. I wish it were cheaper, so that one could plant it by the hundred instead of by the dozen. T. J. WEAVER, *Thirwood*.

**Chrysanthemums at Liverpool.**—As in former years the Parks and Gardens Committee of the Liverpool Corporation have made arrangements for a special exhibit of Chrysanthemums at the Botanic Gardens and Sefton Park, and that these exhibitions are appreciated by the citizens is clearly shown by the large number of visitors. The same number of plants are grown as in previous years, viz., 2,000 at the Botanic Gardens, 800 being grown for large blooms, the rest as bush plants; at Sefton Park the number is 1,700, of which 900 are reserved for large blooms. Those at the former place are earlier, and include many fine flowers, and undoubtedly may be termed the finest lot yet shown. Those at Sefton Park are somewhat later with many promising buds; the ones fully out are remarkable for their colouring and freshness.—R. G. W.

**Cyclamen europæum.**—I have this Cyclamen, or what I believe to be it, doing fairly well at present, though as the corms, which were sent to me from the neighbourhood of Vienna, were only planted last year it is too early to speak with much assurance. At any rate the plants have thrown up good leafage. The leaves are round, purplish crimson on the undersides, but some of them show slight marbling of a lighter tint on the dark green. I notice that Mr. Wolley-Dod says they are without variegation, which makes one doubtful if they are true to name. I was told that in Austria they flowered in the summer. The corms are planted according to Mr. Wolley-Dod's advice, given some years ago in *THE GARDEN*, 3 inches deep in leaf-mould. As regards *C. neapolitanum*, which is naturalised extensively in the south-west, it almost invariably goes by the name of *C. hederacifolium* in this neighbourhood, a title which, according to Nicholson, is a synonym for *C. repandum*.—S. W. F., *South Devon*.

**Selections of Roses.**—We note your article on "Selections of Roses" (page 302), November 1. Allow us as growers for many years to add to your lists the following, which are quite first-rate, bright, floriferous, and generally desirable. To the twenty-four Teas add (George Nabonnand (soft salmon), Francois Dubreuil (crimson), Mme. Chedane Guinoisseau (pure yellow), Mme. Thérèse Levet (crimson), and Princess de Sagan (crimson); and to the twelve Chinas Eugene Beauchamais (crimson), Louis Philippe (bright red), and a specially fine bright rosy red which may be a Polyantha hybrid—Perle des Rouges. Armosa, too, is more of a China than a Bourbon, and is a fine lilac-rose in autumn. The newer Polyantha Roses should not be omitted for bedding purposes. Gloire des Polyantha is a splendid pink, Etoile de Mai a primrose, and the lovely coppery orange Etoile d'Or and Cecilie Brunner are most beautiful. Several of those you name have yet to be proved, but in the decorative Roses the Hybrid Teas Mme. Jules Grolez (soft to clear rose), Antoine Rivoire (pale flesh), and

Duc de Luxembourg (shell-pink, with white reverse) should be added. We find Edith Gifford and Rubens rather tender. Among recent climbers Ards Rover is a great gain, being of a strikingly bright crimson. We might mention that *Rosa sinica* Anemone, considered tender in many places, stood out with us last winter, although we had 4° below zero; it threw up from the base, and produced its lovely soft rosy flowers in profusion. The foliage of this is shining green and most elegant. Another overlooked Rose has attracted great attention—a H.P. or H.T. (?)—Zéphorin Drouot, a very pretty soft and bright cherry-rose, semi-double, produced in bunches. Among the singles none have been more admired than the faint blush-whites macrantha and moschata nivea, but the Rose of 1902 with us has been most certainly Mildred Grant. Whether the blossoms are large or small they are exquisitely lovely, and stand well upright. Bessie Brown can never be popular, as she hangs her head and needs the "show wires" to exhibit her beauty, and to our mind the petals are too "papery."—GEORGE BUNYARD AND CO., *Maidstone*.

## TREES AND SHRUBS.

### THE UBIQUITOUS AMPELOPSIS.

NOW is the time when the Ampelopsis is in its fullest beauty. Ampelopsis Veitchii, or to take its modern and correct name Vitis inconstans, is one of the most useful of all hardy climbers, and the colours it is now exhibiting (late October) almost defy the pen of a scribe or the brush of an artist to depict their varied shades, ranging from palest green and yellow to deep orange and chocolate-red. In the quaint old country town near which I live the Ampelopsis has been largely planted of late years, and is rapidly covering, not only the walls of each house that owns it, but spreading across the neighbouring ones, with no apparent objection from the tenants. No one will question but that it is a thing of beauty, but I am now beginning to ask myself if it cannot be overdone—if one cannot have too much of this good thing. There is no doubt that in the town I speak of it is smothering by rapid strides the architectural beauties of some of the old houses, but then perhaps it is at the same time hiding modern architectural defects. To my mind the Ampelopsis, in order to be useful and effective, requires handling with cautious care, and by no means let it be overdone.

Were I taking a brand-new house, red brick or stucco, no doubt I should start by planting this creeper all round it, but—and here comes my word of advice, or rather suggestion—why not plant at the same time, and between the plants of Ampelopsis, some of the less rapidly growing but handsome flowering things, so that here and there as they become established an Ampelopsis may be weeded out, and thus a foliage plant make room for a flowering one. Why, for instance, neglect the beautiful hardy Clematises of which Messrs. Jackman have raised so many fascinating varieties, why not find a place here and there for a Wistaria, for one of the Passion-flowers, for the new Polygonum baldschuanicum, and for many another flowering creeper, not least among which should rank Magnolia conspicua, that king of all wall shrubs. By dint of a careful selection of subjects, of which the foregoing are only haphazard instances, one may avoid the monotony which is produced from the over-use of even a beautiful thing, and ensure that variety which is always charming.

F. H. C.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

ACACIA LINIFOLIA, Calpurnia aurea, Camellia Thea, Chrysanthemum nipponicum and various garden varieties, Leonotis dubia, Podophyllum pleianthum, and Primula floribunda.

#### Palm House.

Sterculia mexicana and Trichilia odorata.

#### Orchid Houses.

Acineta Humboldtii, Bifrenaria Charlesworthii, Bulbophyllum Peechi, Calanthe Veitchii, C. vestita var. rubro-oculata, Cattleya bowringiana, C. dormaniana, C. labiata, C. logyne fuliginosa, Compactia macropleuron, Cymbidium longifolium, C. traceyanum, Cypripedium concolor, C. Elinor, C. insigne, C. insigne var. Sandere, C. Sallieri, C. tonsum, C. virens, Dendrobium aqueum, Epidendrum evectum, Eria barbata, Laelia-Cattleya statteriana, Lycaste Skinneri, Masdevallia macrura, Maxillaria crassifolia, M. rufescens, Odontoglossum constrictum, Oncidium tigrinum, O. bracteatum, O. cheiroporum, O. unguiculatum, O. varicosum, Pleurothallis rubens, P. velaticaulis, Sarcanthus insectifer, Sophronitis cernua, and Stanhopea oculata.

#### Range.

Aloe Bowiea, Asarum cephalum, Clerodendron splendens, C. umbellatum, Crassula perforata, Dimorphotheca cuneata, Dorstenia argyrea, Erica conspicua, Jacobinia chrysostephana, Justicia calycotricha, Lindenbergia grandiflora, Pitcairnia Morelii, Ruellia amena, Sonerila maculata var. Leopoldii, S. Mme. E. Walter, S. Mme. Pynert, S. Mme. Secretan, and S. Mme. Victor Alesch.

#### Succulent House.

Aloe longiflora, A. pluridens, Bomarea Carderi, B. patacoccensis, Crassula rubicunda, Dermatotrys Saundersiae, and Plectranthus purpuratus.

#### Greenhouse.

Among other things the following are conspicuous: Begonia Gloire de Lorraine, B. Mrs. Leopold Rothschild, Calceolaria Burbidgei, Carnation Mrs. Leopold Rothschild, Cyclamen latifolium var., Eupatorium odoratum, Epacris (various), Jacobinia magnifica var. pohliana, Peristrophe speciosa, Schizostylis coccinea, Tecoma Smithii, and Chrysanthemums in variety.

#### Rock Garden, Herbaceous Borders, &c.

Campanula glomerata var. dahurica, Lithospermum prostratum, Iris stylosa, Kniphofia Hofgartner Ehman, H. Cannell, Rudbeckia nitida, Schizostylis coccinea, and Watsonia marginata.

## NATURAL GARDENING IN SURREY WILDS.

### PALMS AND CAMELLIAS OUT OF DOORS.

OF the most beautiful and interesting perennials I have been able to grow successfully in the light, very dry sandy soil of the north part of Surrey, I give to Chamærops excelsa the palm, but Bamboos of several kinds and Camellias come next. All have been out now winter and summer for nearly twenty years, and the Palms and Camellias have never been moved.

My largest Chamærops is protected by a high hedge from the north, and has a south-east aspect. Opposite the Palm, about 20 yards distant, are some Camellias planted in a deep recess made in a Rhododendron hedge about 12 feet high. Not a ray of sun can reach these plants. They were shabby specimens 5 feet or 6 feet high, which, fifteen years ago, were removed from an old greenhouse and planted out in sand and peat. They have been in this same position fifteen years, and have flowered each year, and some years fairly well. The size and number of the flowers depends mainly on the weather from February to April. The



leaves are large and faultless, strikingly firm, strong, and healthy-looking. They shine and look as if they had been frequently cleaned, but have not been even syringed or washed in any way. Camellias evidently like shade and to grow under trees. The flower-buds for next year are now fully formed, about the size of Peas, and promise well. The finest *Chamaerops excelsa* is perhaps thirty years old. It was a small table plant, no doubt grown from seed in a small pot, and was bought with a few others twenty-three or twenty-four years ago at Stevens's, and they cost a little less than sixpence each. My Palm is now 11 feet high, and the leaves extend over a space 12 feet in length, and nearly as much in width. The leaves, in all thirty in number, are well formed, and, with

of England. During winter both these natives of Japan and, I believe, parts of China look lovely, and, though forced down by accumulations of snow, rise again as soon as the thaw comes, mine without having suffered in the least even in the two hard winters we have had during the last twenty years.

It is curious that of the several Palms I have planted out—all, I believe, of the same species—the rate of growth has been very different, some having grown twice as fast as others, perhaps growing hardly at all for a few years and then starting into strong active growth. This may depend upon the water supply during the summer, but I have not lost one that I planted out in very dry places. Indeed, both Palms and Bamboos in this north part of Surrey certainly do well,

even in very dry soil, as I have proved it to be by digging down and examining it several times. In the winter we put some ordinary dry Bracken Fern round the lower part of the stems of the Palms, but the heads, leaves, and petioles have been left without any protection whatever. Even the leaves that are seven or eight years old do not as yet seem to have suffered in health or beauty.

My largest *Chamaerops* is a male, and has flowered three years successively, producing three or four large bunches of very small yellow flowers, consisting almost entirely of short thick stamens. The flower-stems appear in large yellow spathes, which protrude in different parts of the circumference of the upper part of the stem in the 5 inches or 6 inches of growth of the year before the last. *Chamaerops excelsa* ought certainly to be grown in many gardens near London having a south or south-west aspect. When planted it requires

the side of a bank looking south, which forms the back of a small shallow pit about 12 feet long and 4 feet broad, from the lower part of which I have dug a small tunnel sloping downwards in a direction under the roots of the Palm, which are very numerous and strong, and branch freely. I have no doubt that plants grown from seed and carefully hardened off when about a foot high might be obtained in numbers for experiment out of doors, but they ought not to have been forced on in hot houses. It is slow strong growth that is evidently required for plants that are to be planted out, and it will perhaps be four or five years before they move much, by which time, if left alone, vigorous growth may begin, and good, uninterrupted, steady improvement will follow.

There were fifteen or twenty years ago parts of Hampstead Heath which might have been planted if that dreadful levelling and destruction of Gorse, Broom, and other wild plants, such as Sun Dew and Buckbean, which destroyed the irregularity and natural arrangement that seems to offend some of our councillors and managers of wild woods and commons had not been ordered or decided upon. Why should not Bamboos, Rhododendrons, &c., be planted in numbers on many of our heaths? The cost would be slight, and the instruction and delight afforded to the people of all ages and classes immense. A few level places might be kept for games and gymnastics, but here and there the general area might be planted with dwarf shrubs, British and foreign, wild flowers, and various plants in collections, with wide paths running between them. In a part of Regent's Park this has been already commenced, and I believe if carried out to a much greater extent in the case of many of our vacant spaces would be of the greatest advantage to, and well appreciated by, all classes. Plants would now probably seldom be ill-treated, and a keeper here and there would easily prevent interference by children and thoughtless people. Indeed, the time is near when the public will themselves protect vegetation, and our commons and plantations would be no more interfered with or injured than are the thousands of private suburban gardens in and around London.

North Surrey.

F. R. C. P.

## CHRYSANTHEMUMS.

### THE BEST TWENTY-SIX EARLY-FLOWERING VARIETIES.

OF undoubted merit are the following:—

JAPANESE.

*Mme. Marie Masse.*—As this variety is an ideal border plant, it should certainly head the list.

It is a plant of sturdy growth and branching habit, and bears in prodigious profusion pretty blossoms, and each on a good length of foot-stalk; colour lilac-mauve, which, under certain conditions, deepens into a rose-pink; height about 2½ feet; comes into flower in the latter part of August and continues well into October.

*Crimson Marie Masse.*—This is really a chestnut-coloured sport from *Mme. Marie Masse*, and as the flowers age they pass to a deep rich bronze. In other respects its characteristics are identical with the parent plant, and this beautiful sport may be considered a splendid addition to the early sorts.

*Ralph Curtis.*—Another sport from *Mme. Marie Masse*, and a plant which appears to be comparatively unknown. It is one of the most robust members of this family, and blooms most profusely; colour creamy white, and, under certain



CHAMAEROPS EXCELSA IN A NORTH SURREY GARDEN.  
(This Palm has been growing out of doors for twenty years.)

the exception of three or four of the oldest, are not ragged or damaged by weather. The largest are 4 feet in diameter, and the petiole is of the same length. The hairy stem is 5 feet high and nearly 3 feet in circumference. I find that transplanting Palms throws them back for two years or more. A good place should be chosen at first, and even if the plant should look a little unhappy and show no growth it is better to leave it alone, as after a year or two it will probably improve and then throw new leaves and steadily grow without ceasing even in the winter.

*Chamaerops excelsa* and Bamboos contrast remarkably with most of the shrubs and plants we are able to grow in our gardens in this part

little attention, but unless the gardener has had some experience in their management he should be requested to let these plants alone and try no experiments.

*Chamaerops excelsa* would, I feel sure, grow well in many dells and hollows sheltered from the north and east a few miles south of London. It might be worth a trial even in Kensington Gardens. On many of the Surrey commons in natural pits and depressions, and in parts of St. George's Hills and such like pleasant places, and in dells and hollows in sandy or peaty soil, it would probably flourish. A depression in the ground some inches deep should be made near the plant, in which the rain might collect. My best specimen is on



conditions, the bases of the florets are slightly suffused a salmon colour; height, season of flowering, and other characteristics identical with the parent plant.

*Robbie Burns*.—In this instance we have a rosy cerise sport from Mme. Marie Masse, and quite distinct from all others. This variety is very charming in its earlier stages of flowering, the colour of the blossoms at that period being distinctly pleasing. Its period of flowering appears to be a week or ten days earlier than that of other members of this group of Chrysanthemums, but with this exception there is no difference.

*Horace Martin*.—This is the latest addition to the sports of Mme. Marie Masse, and probably the most valuable of the whole set of five sorts. The colour is a deep rich yellow, and in certain districts is slightly suffused a shade of bronzy crimson at the base of the florets. In so far as regards habit, freedom of flowering, height, and constitution it is quite equal to the other four sorts. The distributor of this sport grew no less than 60,000 of this variety in the season which has just closed, and this should be sufficient to prove its high value.

*Mme. Casimir Perier*.—A Continental introduction of some ten years' standing, it is a plant with a wonderfully good branching habit of growth, developing a very free display of good blooms of even and pleasing form, and each one on a capital length of foot-stalk; colour creamy white, tinted pink; height about 2½ feet to 3 feet; in flower in August and September.

*Goacher's Crimson*.—An excellent addition to the early-flowering section, though very similar to a Continental introduction named M. J. Bte. Chauvin. The colour is a bright rich crimson, with a golden-bronze reverse, and the flowers, which are large and borne on stout erect foot-stalks, make a bold show of a useful colour in the hardy flower border; height slightly over 2½ feet; period of flowering late September and October.

*François Vuillermet*.—Although this variety has been in commerce for several years, it is a plant that has not been grown so largely as its merits deserve. Its habit is beautifully branching, and its height does not exceed 2 feet. The blooms are fairly large and full, and each one is borne on a useful length of stout foot-stalk; colour lilac-pink; in flower during the latter half of September and October.

*Doris Peto*.—This is a pure white sort of English origin, and little has yet been seen of it. The form of the dainty and pretty flowers is ideal, and as in this respect it equals Mychett White, and the plant has as good a constitution as Market White, this comparatively new variety may be regarded with favour; height about 2 feet; in flower September and early October.

*Léonard Peto*.—One of the most striking bright and rich yellow earlies in commerce, being a veritable mass of beautiful blossoms, which are most profusely developed. But for the advent of Horace Martin this plant would have created a great impression, as it produces a large and compact yet graceful head of flowers, and each one speaks for itself; height about 3 feet; in flower during September.

*Lemon Queen*.—This is one of the earlier raised English seedlings, and there is much to admire in it. Its colour is a rich orange-yellow, and the form of the flowers is pleasing; florets rather narrow and slightly drooping; habit branching and sturdy; height rather more than 3½ feet; in flower during the latter half of September and October.

*Harvest Home*.—A bright and rich crimson yellow, with a golden reverse also tipped golden-yellow, and a plant which has been highly thought of for some years; habit fairly branching and sturdy; each flower is borne on a strong, erect foot-stalk, and in consequence each one can be utilised; height about 3 feet; in flower during late September and October.

*Market White*.—A very pretty pure white, but hardly so pleasing as Mychett White in form, having somewhat broader florets. The plant is sturdy and branching, and comes into flower in

late September and continues blooming throughout October; height about 2½ feet.

*Norbert Puvrez*.—A Continental introduction of more than ten years ago, and, except in a few instances here and there about the country, rarely seen. Its colour is a striking rich golden-salmon, the cut blooms under artificial light being very rich and effective. The flowers are of good size, and are developed on plants less than 2 feet high; period of flowering September and early October.

*Orange Masse*.—This must not be confounded with the family of plants represented by Mme. Marie Masse and its sports. The form of the flowers is quite distinct, and the habit of the plant is taller and somewhat straggling. Nevertheless, it is a very excellent plant, bearing in great profusion charming sprays of blossoms of a pleasing bright bronzy fawn colour. In my own garden the plants exceed 3½ feet in height; period of flowering late September and October.

*Ryecroft Pink*.—One of the most dainty early sorts. The flowers are not large, but their form is very pleasing, and when cut in sprays as they are naturally produced they make valuable decorative material, and the blossoms are borne in great profusion, colour bright pink; height about 18 inches or rather more; in flower in September and early October.

*Notaire Groz*.—This is a very refined kind, developing elegant sprays of beautiful silvery-mauve blossoms of high decorative quality; height about 4 feet, rather straggling habit, and a profuse bloomer; period of flowering the whole of October.

*Bouquet de Feu*.—A very useful plant of a sturdy and dwarf character, developing rather small blossoms with notched florets; colour a pleasing shade of light bronzy terra-cotta; height rather less than 2 feet; in flower at end of September and throughout October.

*Chateau St. Victor*.—This is a plant of easy culture, developing pretty flowers of a pleasing shade of amaranth quite freely; habit fairly bushy and branching; height about 3 feet; in flower during the whole of September and early October.

*Bronze Prince*.—An English-raised seedling of an unique colour, which may be described as old gold, shaded cherry-carmine, with a golden-bronze reverse; florets flat and not over long, and rather pointed; the plant has a slender habit, but is very free flowering; height about 3 feet; in flower during September and the first half of October.

*Ivy Stark*.—This is an excellent representative of the early sorts, and may be described as an early Source d'Or, which variety it very much resembles; colour rich orange-yellow; height about 2 feet; period of flowering, September and the earlier half of October.

*Irene Hunt*.—A very beautiful, free-flowering plant, much admired at the Tamworth trial of early sorts. The florets are long and somewhat twisted, and build up a charming Japanese bloom. The colour may be described as golden-chestnut, and this is very effective in the garden; height about 3½ feet; in flower latter half of September and October.

*Mychett Pink*.—This is one of the earliest of the Japanese sorts to flower, and may be had in August and September in pleasing form. The earliest flowers are white, slightly tinted blush, but those developing later in the cooler weather are of a soft pink colour; habit branching and sturdy; height about 2 feet; propagation late in the spring suits this variety admirably.

*Dorothy King*.—A novelty which has much to commend it. The flowers are large and full, and develop in good bunches; colour a pleasing shade of deep pink, striped light pink; height about 2 feet; period of flowering late September and October.

*Henri Yoon*.—A sport from M. G. Grunerwalde, and one of the most reliable of the members of that group of Chrysanthemums; the colour is rosy salmon on a yellowish ground, and the flowers are large and full. The plant commences to flower in early August and blooms continuously till October; height about 18 inches.

*Mlle. Guindudeau*.—This plant has a good reputation, and blooms most profusely during the latter half of September and October; colour pink on a white ground; habit bushy and spreading; height about 2½ feet.

All the above varieties are in commerce, and any Chrysanthemum specialist should be able to supply them.

Highgate, N.

D. B. CRANE.

## NOTES FROM SCOTLAND.

THE advent of November finds many of our Scottish gardens still comparatively bright with flowers long since past in England. One hears of such things as *Rudbeckia speciosa*, *Salvias*, *Linaria bipartita*, *Fuchsias*, *Gladioli*, *French Marigolds*, *Dahlias*, *Sweet Peas*, *Hollyhocks*, and, of course, *Asters* still beautifying gardens, not only in warm positions but in very late, cold districts, as at Drumlanrig for instance, where Mr. Inglis is still cutting Carnations, &c., from the open. Here at present Sutton's Rose Queen Hollyhock, of which we have two large masses, is quite brilliant. Raised from seeds it comes true to colour, which approaches more nearly to red than rose. It is marvellous how many flowers that ought to be common to every garden are scarcely known at all. *Linaria bipartita* is one such, and numerous have been the enquiries as to the identity of this pretty annual. *Schizostylis coccinea* is another, which invariably when in flower—as it has been for some time—calls for much questioning. Then I should imagine *Erigeron mucronatus* and *Aster Linosyris* are very seldom prominently planted in gardens, or perhaps our cooler climate suits them better than the warmer south.

One class of plants has been rather disappointing all this dull season, namely, the fibrous-rooted Begonias. They have been quite smothered with coloured buds, but, unfortunately, few of these have expanded, and as a consequence they have done nothing to brighten the garden. On the other hand, single tuberous Begonias, though late, have made a glorious bit of colouring. I made bold this year to plant directly into the beds tubers that had been merely started, and these, notwithstanding the backward character of the season throughout, have been most satisfactory. Sweet Peas, as I have already remarked, are abundantly in flower, and this may be interesting to those who fail with plants raised from seeds sown in heat in January; those grown in a cool structure till planted out are still producing flowers profusely. This is the case not only here, but in other gardens far apart.

### MICHAELMAS DAISIES

in some respects have been disappointing, because in all parts of the country many have not yet reached the blooming stage. Here, where they come somewhat early, *Aster Tradescanti* is just showing one or two of its pretty white flowers, and the later varieties of *A. Nova-Engliæ* will not flower at all. I hear of such fine old kinds as *A. Amellus* and *A. ericoides* not flowering, so it is clear that to enjoy the harvest of Michaelmas Daisies only the earlier sorts should be selected. Fortunately, these are sufficiently numerous. I plant annually a large number of bulbs of *Galtonia candicans*. This year many hundreds have died without any apparent reason, and there has on that account been a regrettable blank in the garden. But it has not been here alone that the plants have died out, as I have heard of the same occurrence elsewhere. *Montbretias* also, and especially *M. rosea*, have shown like symptoms of ill-health—a most regrettable circumstance.

I understand a new Scottish journal on the lines of *The Field* is to make its appearance in the new year under the name of *The Scottish Field*. It will appear only once a month, and, while catering for those who are fond of sports and other forms of enjoyment and employment in the country, gardening from a purely Scottish point of view is not to be neglected. The headquarters of this new journal will be in Glasgow.

### THE NURSERY TRADE.

Material for planting as grown in the Edinburgh



nurseries is in splendid condition this year, but somewhat late in maturing. While inspecting one of the larger establishments the other day it was a pleasure to see the great blocks of some particular forest tree in tens of thousands, as good in size and quality as if each one had been specially prepared, and, more remarkable still, nothing was there beyond a saleable size; this is a vast improvement on the state of the trade ten or twelve years ago.

Prestonkirk.

R. P. B.

## THE ROSE GARDEN.

### ROSE LADY EMILY PEEL.

ONE would not think that with the many varieties available old kinds such as the above would still be sought after. But so it is. Lacharme was a good judge of Roses, and he would not have sent out this variety, even 40 years ago, had he not been convinced of its value. Lady Emily Peel is a vigorous grower, as are most of the hybrid Noisettes, and it blossoms well in the autumn. The flowers are of fair size, white faintly shaded rose-pink. We should like to see the whole of the Noisette Perpetuals retained in our collections. What can be more lovely than Mme. Auguste Perrin, Mme. Fanny de Forest, Mme. Alfred de Rougemont, Mme. Blanche Durrschmidt, and such like during autumn.

### THE PERGOLA IN ENGLISH GARDENS.

BY MISS JEKYLL, V.M.H.

(Continued from page 327.)

THE height and width of the pergola and the width apart of the pairs of piers can only be rightly estimated by a consideration of the proportions of other near portions of the garden, so that it is only possible to suggest a kind of average size for general use. The posts or piers should stand from 7 feet 2 inches to 8 feet out of the ground when the piers stand from 8 feet to 9 feet apart across the path. In a garden where there is nothing very high close by, this kind of proportion, rather wider than high, will be likely to be the most suitable; but there may be circumstances, such as a walk through a kitchen garden, where economy of space is desired, or when the pergola has to pass between tall trees at a little distance to right and left, when the proportion that is rather taller than wide had best be used. In a whole or covered pergola the pairs of piers would be further apart in the length of the walk than between the individuals of each pair across the walk, but in the open pergola, where there is no roof and either no connexion or only garlands and level side rails—or garlands alone—they may stand closer.

For the open pergola without top Roses are among the best of plants; on one post a pillar Rose and on the other a rambler. A select list for this use would be: As pillars, Alister Stella Gray, nankeen yellow; Reine Marie Henriette, red; Climbing Aimée Vibert, white; Carmine Pillar and Waltham Climber, No. 1, reds; and for ramblers, the Garland, Dundee Rambler, Bennett's Seedling, and Mme. Alfred Carrière, all white or flesh white; Crimson Rambler, Reine Olga de Wurtemberg, Longworth Rambler, and Dawson, reds; as well as multiflora single and double, the large-flowered multiflora, and R. Brunonii. To keep the bases of the piers clothed some strong young shoots of the current year should be shortened

so as best to cover the space, when, instead of making the whole length they would otherwise have attained, they will stop growing at the tips and throw their strength into preparation for flowering shoots at the lower levels.

Among some others of the best plants for the open pergola are the free Japan Honeysuckle, the common but always delightful white Jasmine, the new Polygonum baldschuanicum, Clematis Flammula, the little-known but quite excellent Clematis paniculata, blooming in October, the large-flowered Clematises, late Dutch Honeysuckle, Crategus Pyracantha, Rhodotypos kerrioides, Kerria japonica, double-flowered Brambles, and Forsythia suspensa.

There is another class of shady covered way made of flowering trees that differs from the pergola in that when mature it has no adventitious supports whatever, the structure being formed by the trees themselves. It may be of shade trees only, when it comes near the pleached alleys of our ancestors. For this the best trees are Plane, Hornbeam, Wych Elm, and Beech. The Planes should be planted 10 feet to 12 feet apart, and pollarded at 8 feet from the ground; their after-growth is then trained down to a temporary roofing framework of poles. In the case of this tree the sides are open. Hornbeam, Wych Elm, and Beech are trained as they grow to form both walls and roof. But many of the small flowering trees do very well trained as flowering shady ways, though when they have arched over and form a complete roof the flowers are mostly on the outer sides. One of the best for this use is Laburnum, but the beautiful Japanese flowering Apple (Pyrus Malus floribunda), the Snowy Mespilus, the Guelder Rose, the Siberian

and other fruiting Crabs, are all amenable to the same treatment. This leads naturally to covered ways of other fruit trees, and the delights of the fruit garden are much increased by the presence of a naturally formed pergola of Apple, Pear, Plum, Medlar, and Quince trees.

Some adaptation of the pergola, of a temporary kind, is also extremely useful in the case of a garden that is new and raw, or in some place that is held on a short tenancy, when the tenant wishes to enjoy shade without having to wait for the growth of long-lived and slow-growing plants. Any poles, from the Hop-pole to the Bean-pole size, put up as the framework of a covered way, can in one season

be clothed with a grand growth of the great Orange Gourds, the Potiron rouge of our French neighbours. These, with others of the ornamental Gourds and quick-growing climbers, such as Japanese Hop, Major Convolvulus, Mina lobata, Canary Creeper, and the trailing Nasturtiums, will give ample shade in the hottest months and a glory of autumn fruit and bloom. Plants that are suitable for the open pergola are equally suitable for verandahs, with the addition of some others of the tenderer kinds that will succeed in the shelter and warmth of the sunny house-front, especially in the southern counties. For here we may have, as in Devonshire, Cornwall, and the Isle of Wight, Fuchsia, Myrtle, Pomegranate, Solanum jasminoides, and Solanum



AN OLD GARDEN ROSE: LADY EMILY PEEL.

crispum, and even a little further north the beautiful Bignonia radicans and the blue Passion-flower. Perhaps a well-grown Wistaria is the best of all verandah plants, for not only does it yield its masses of bloom almost unfailingly year after year, but its foliage is both graceful and handsome, and always looks fresh and clean.

It is well to think out various combinations for verandah planting that will give a good succession of flower. Thus, as one example, the season of bloom might begin with Wistaria, or Robinia hispida, a capital shrub for this use; then in full summer would come white Jasmine, and, later, Bignonia radicans. Wistaria, if allowed to grow at will, covers a very





A DRY WALL, SHOWING IRREGULAR JOINTS FILLED WITH SOIL (NO MORTAR USED).

large space, but if rather closely pruned it can be kept within bounds and flowers with astonishing freedom.

The Ayrshire and rambling Roses are beautiful in their season on a verandah, but they have the disadvantage of being for one season only, and they cover so much space that but little room is left for any other plants. —Reproduced by permission from the *Journal of the Royal Horticultural Society*.

## WALL GARDENING.

### MAKING A WALL GARDEN.

#### II.—VARIOUS WALLS AND THEIR POSSIBILITIES.

**W**ALLS, generally speaking, may be divided into two great classes, namely, dry walls, *i.e.*, built without cement or mortar, and masonry walls, which have the stones more evenly placed and the joints filled with cement or mortar.

#### DRY WALLS.

A good example of dry walling is given in the accompanying illustration. It will be seen that there is regularity only in the top row of stones. Although the face of the wall is almost perfectly flat, without any projecting stones, the joints are uneven and irregular. It will be readily seen that for the purpose of wall gardening such a method of placing the stones has great advantages, as the joints would admit the use of plants varying considerably in size, and also in the root space they may require, as naturally the largest and deepest joints would be filled with the boldest kinds of plants. In a subsequent chapter on this subject I hope to give sketches showing sections of various walls.

In all dry walls, regular or irregular, the stones should be tilted backwards to allow the rain water to soak in between the joints, where the slightly sloping stones would carry the water

backwards into the soil. If the stones do not naturally lend themselves to being tipped backwards in the manner described, the desired effect may be obtained by inserting small wedge-shaped stones, which would not only tilt the stone and make it more secure, but would also increase the width of the joint and make the latter available for more soil. The illustration shows several such instances of small stones introduced for that purpose.

Dry walls as a rule have only one face, and are built up against ground which falls abruptly, so that they form retaining walls which, without doubt, are the best for the purposes of wall gardening. If, however, such dry wall was built standing quite free, forming a sort of boundary wall either of the garden itself or some portion thereof, it would be best to have it sufficiently thick to prevent the soil in its interior from drying up too rapidly during a spell of hot dry weather. Sometimes very pretty effects of planting may be had on walls of that description which mark the boundary perhaps of a formal garden, separating the latter from other portions of the ground. More especially is this the case when these walls need not be built sufficiently high to form a protection against cattle, &c., but divide merely different parts of the garden itself, where they could be kept so low that the eye would look down upon, and not up to, the plants on the top. A good proportion would be a thickness of, say, 2½ feet and a height of 3 feet to 4 feet. Walls of that kind possess the advantage of enabling us to grow plants requiring shade as well as those requiring a sunny position on the same wall, and sometimes both the shady and the sunny side may be seen at the same time.

Another kind of dry wall suitable for wall gardening may consist of a sunk fence dividing, say, the pleasure grounds from a park, meadow, or grass field. If the ground of the adjoining land should be fairly level or sloping towards the garden or pleasure grounds then the sunk fence would not be suitable for wall gardening, because the additional railing or other fencing required to keep off sheep or cattle from the plants in the wall would be clearly visible from the garden, or perhaps even from the house.

But if, as is often the case, the pasture land slopes rapidly in the opposite direction, *i.e.*, away from the house, it is generally possible to have the dry wall which forms the sunk fence of such a height that a border, a path, and also a fence of some kind at a distance of, say, 5 feet or 6 feet from the dry wall would still be invisible from the house and from the garden. Thus the dry wall may be turned to good account for wall gardening without the danger of being molested by cattle and without bringing a hard dividing line conspicuously into view. Still another kind of dry walling suitable occasionally for wall gardening would be the ordinary stone hedges which are so abundant, especially in the West and North of England. If such a hedge forms the boundary, say, of a small garden abutting against a road or field, there is no reason why the garden side of such a hedge, whether sunny or shady, should not be turned into a beautiful wall garden, made bright and cheerful by flowers of many sorts.

But the most important of all kinds of dry walls is the terrace wall. It is here that wall gardening should be at its best, because the conspicuous position of a terrace wall will make it imperative that it shall be adorned as much as possible with suitable plants. Even terrace steps may often be constructed on the dry wall principle, and very ornamental they may be made with tiny plants protruding from every chink or fissure. It is wise as a rule to build dry walls for wall gardening, not too high, so that the plants with which the wall is furnished may be, if possible, never much above the average level of the human eye. If the ground falls rapidly it would be better to have several successive terraces rather than a dry wall of considerable height, unless the terrace wall is a masonry wall, intended not so much for the purpose of growing plants on the wall itself as for being covered with ornamental creepers. In such a case, of course a higher wall might be desirable and often practical. As detailed construction of the various kinds of dry walls will be illustrated in a later essay I will now briefly deal with the other class of walls, namely,

#### WALLS OF MASONRY.

By walls of masonry are meant walls in which the stones or bricks are placed regularly and are held together by cement or mortar of some kind. It must not be supposed that such walls are entirely unfitted for wall gardening. On the contrary, they may often be made very ornamental indeed, but it takes longer as a rule to get the plants established, as in most cases these have to be reared from seeds sown on moss and soil pressed into the joints after a portion of the mortar has been removed. Sometimes, too, it is possible without doing great damage to remove a few stones here and there and make holes large enough to hold the soil. The task of establishing plants on a masonry wall is much easier if the latter should be several years old (the older the better), and if it should already be partly covered with moss or other vegetation.

Where such walls of masonry are deep, terrace walls, say, near a large mansion, or where they are crowned with balustrading or other architectural features of importance, which in design correspond with the style of the architecture of the house and are probably built with stone elaborately worked, it would be a mistake to knock holes in them, and it would probably be much better to cover them with handsome climbers rather than small rock plants which on high walls of that kind would be out of place, and too far away from the eye to be fully appreciated, while Roses and other bright flowering creepers, both deciduous and evergreen, would be far more satisfactory and produce a better effect.

Elmside, Exeter.

F. W. MEYER.

(To be continued.)



## NOTES ON HARDY PLANTS

## POLYGONUM LANIGERUM.

**A**LTHOUGH only about twelve years have passed since this plant was first brought to notice through the agency of the St. Petersburg Botanic Garden, it has been largely used for outdoor decorative planting in summer. It is found widely distributed about the tropics and sub-tropics, but is not met with in Europe. Although in some descriptions it is stated to be a perennial, it is usually treated as an annual, and it is doubtful whether it would live through a severe frost. It varies in height from 4 feet to 10 feet, the stems being stout, fleshy, and semi-procumbent. Side branches are numerous, and strong plants growing in rich soil are sometimes found as much as 5 feet through. The flowers are in terminal heads and red, though it is not often that they are seen. The chief beauty of the plant lies in its large, handsome foliage, which is of a silvery hue by reason of a dense, silky tomentum. The individual leaves vary greatly in size, the larger ones being almost 12 inches long and 4 inches wide. Where sub-tropical bedding is practised this *Polygonum* will be found most useful. It makes a handsome bed in a prominent position on the lawn, while as a group in the herbaceous border its distinct appearance and colouring are very striking. By sowing the seeds indoors early in spring, and so having strong plants to plant out in May or early in June, the best results are obtained.

W. D.

## NOTES FROM DEVONSHIRE.

At this period of the year very varied notes on the abnormal flowering or fruiting of certain plants usually appear in numerous journals, local and otherwise; this season writers have had abundant material, owing to the erratic weather which has prevailed throughout the whole year. The advent, however, of a few warm days, accompanied by some hours of bright sunshine during the latter part of October and the few days that we have already experienced in November, has induced vegetation in this part of Devon, whether wild or in the garden, to retain what should have been its summer garb, and this, together with the simultaneous appearance of many autumn flowers in their proper season, is giving us a sort of combined summer and winter flora. In the hedges the Periwinkle and Lychnis are bright with their blue and red flowers, while close beside them is the wild Strawberry, both in flower and fruit, and the black and pretty ripe fruits of the Blackberry jotted about in big clusters, and sometimes crowning the hedge itself with huge black masses. The scarcity of sunshine at the right season to ripen the berries properly has made the crop a late one, and the prevailing rains have, to a large extent, washed out the flavour. In contrast to the Blackberries, in many localities the hedges are crowded with the large white fruits of the Snowberry (*Symphoricarpos racemosus*), which is especially abundant in this neighbourhood.

To come to the garden, things have been somewhat provoking, especially with summer Roses. Many of them, however, are now making up for these shortcomings, especially *Alister Stella Gray*, which is now full of flowers and has plenty of buds. Amongst other plants still flowering in sufficient abundance

to provide cut flowers for my rooms are Sweet Peas, *Lavatera trimestris*, *Godetia* Lady Alhemarle, *Phlox Drummondii*, Chinese Pink, Dahlias, *Nicotiana affinis*, *Mignonette*, *Nasturtium*, *Mari-golds*, *Honeysuckle*, *White Jessamine*, and *Laurus-tinus*.

JOHN R. JACKSON.

Claremont, Lympstone, South Devon.

## PRIMULA CAPITATA.

THOUGH autumn is always laden with "unwelcome lore," as the poet called it, for the flower-lover, yet it has its compensations as well, and one of these is that we have time to linger longer over each individual plant to study its beauties, often heightened by the attributes of the time of the year. Such is one's thought as one studies *Primula capitata*, now blooming so prettily by the margin of a little Water Lily pool. Earlier in the year we seem to care less for its fine heads of deep purple flowers, but now, when flowers grow scarcer and there are fewer of bright colours, we seem to enjoy all the more this late-blooming species. It is most attractive indeed, for one cannot but admire its colouring and the beauty of the individual blooms, congregated in a close head, and, when looked at in various lights, showing some beautiful tints. Unfortunately, it is not a long-lived plant as a rule, and the advice given in "The Century Book of Gardening," to raise it frequently from seed, is highly necessary. In stiffer soil than mine it appears to resent much moisture at the roots in winter, though it must have plenty all the summer through. Here, however, it does not object to having moisture at the roots in winter as well and thrives in as wet a spot as *P. japonica*. This autumn appears to be giving us an unusual number of late flowers on the various *Primulas*, and double and single *Primroses* and *Polyanthuses* also are blooming more freely than is their wont at this time. None among them is more admired than the Himalayan *P. capitata*.

S. ARNOTT.

## COTONEASTER HORIZONTALIS.

THIS beautiful *Cotoneaster* is one of the prettiest and most acceptable of small shrubs, of such dwarf stature as to be eminently suitable for growing on small rockeries or in the alpine gardens of smaller size than those in which the larger species can be planted with advantage. It is true that some

think that its deciduous habit makes it less valuable than such species as *C. thymæfolia*, but no other species of its size has its elegant though, in a sense, formal habit of growth, which never fails to attract attention and to make it appreciated. When it is allowed to form a large plant, covering a little space on the rockwork, it is particularly handsome: but even in a small state it is full of charm with its fan-like branch arrangement. It is one of the freest of all to fruit, and in this garden, where few of the others fruit well, *C. horizontalis* is well berried and is very pleasing indeed, with its bright scarlet bead-like berries showing against the dark green small leaves. Many of these leaves will become bright red before they fall for the winter. The flowers, which are, of course, freely produced to give such a crop of berries, are rosy coloured and come in spring, so that the little shrub is possessed of more than one or two merits to commend it to our favour. It looks well against a large stone on one of the flanks of the rockery, or even filling a large pocket in a more formal rockery built for cultural rather than artistic requirements. It comes from China, whence it was introduced in 1879, and is perfectly hardy with us in Scotland. I know of its doing well in much colder localities than this.

S. ARNOTT.

## ACAENA BUCHANANI.

WE owe all our garden *Acanas* to the Southern Hemisphere, and of those in cultivation all but a few are natives of New Zealand, the native habitat of the one now under notice. The most useful of the genus belonging to the section composed of those which creep close to the surface of the soil, and form what we may call perfect carpeters. A few of the genus assume a more upright habit, and are not so suitable for carpeting the dwarfier bulbs as the others, though they are, it may be, equally attractive in themselves. It is to the creeping section that *A. Buchanani* belongs, and no one who knows it will question its claim to be considered one of the most precious of its class. This is true, despite the fact that it has not the crimson spines of *A. microphylla*, which give that plant a greater share of bright colouring. On the other hand, *A. Buchanani* has very beautiful small foliage, much the same in size and character as that of *A. microphylla*, but of a most charming pea-green. It is



A BED OF POLYGONUM LANIGERUM IN THE ROYAL GARDENS, KEW.



very beautiful indeed, and I have never regretted making its acquaintance several years ago in one of the prettiest and best of our large British botanic gardens. The flowers are greenish and of no value, and the "burrs," or little round heads, are of the same colour as the pretty pinnate leaves. Like the greater number of the genus, it is not fastidious as to soil or situation, but its likings are best supplied by giving it a moist and half or wholly shaded position in a peaty soil.

It is a capital plant for planting about the rough stone steps of the alpine garden, and it makes a splendid carpet for Snowdrops, Snowflakes, Colchicums, Tulips, and the like, as well as for the taller herbaceous plants. Although it is not a plentiful plant in the nursery trade, it is in the hands of some of the hardy plant dealers, and will soon be much more plentiful. It is very easily propagated by division, cuttings, or seeds. I prefer spring planting for this species. Under the name of *A. berteriana* I received a plant from New Zealand bearing a very close resemblance to *A. Buchananii*. So close, indeed, was the resemblance that I remarked upon it to the sender, who informed me that he had received it from a competent botanist. Since my plant has grown larger I am inclined to think that a small difference exists, and that the one received as *A. berteriana* has lighter green foliage. It is apparently quite as good as *A. Buchananii*, as I have known it for some years. S. ARNOTT.

long, arching, gracefully disposed leaves, is at all seasons decidedly ornamental, but in early autumn, when overtopped with its silvery plumes, there is then nothing to compare with it. Besides the ordinary form there is a variety with variegated leaves, and another in which the flower panicles are pinkish. This variety, known as *Rendatleri*, is not so beautiful as the type, but from its distinct appearance it is well worth a place in most gardens. In the South of England the Pampas Grass is hardy, but in more northern districts it cannot be thoroughly

garden picture! Is it not possible that the secret might be summed up in the one word "reflection?" Many a time have I longed to point out to the owner of a despised pond, in some cases not a stone's throw from the house, that the whole aspect of the place might be changed were the water's edge but fringed with colour, and endless possibilities would present themselves for beautifying such a spot if the same principles which govern the arrangement of colour in the flower garden were followed. It is to put into practice this theory rather

than to create a water garden, in the strict sense of the term, which we have tried at Broughton, where the moat completely encircles the castle and garden.

I have already explained in a previous article that with us the prevalence of severe frost limits our selection of plants, but there are so many effective substitutes for the rarer species, amongst the thoroughly hardy kinds adapted to the wild garden, that resignation is an easy matter. If the planting of the water's edge is to form a feature from any given point, I think it is important that the



A GROUP OF PAMPAS GRASS (*GYNERIUM ARGENTEUM*), SHOWING ITS BEAUTY IN THE AUTUMN.

(The photograph was taken October 30.)

depended upon unless protected. The New Zealand *Arundo conspicua* (now *Cortaderia conspicua*), though less imposing, is hardier than the Pampas Grass, and may therefore be planted in colder localities. Even this is, however, in many places benefited by a certain amount of protection. Both the above-named prefer a good deep soil with ample supplies of water during the growing season, but stagnant moisture in winter is injurious."

## THE FLOWER GARDEN.

### PAMPAS GRASS.

FEW hardy plants are more imposing and handsome at this time of year than *Gynerium argenteum*, popularly called the Pampas Grass. Our illustration will give a good idea of its value and beauty as a lawn plant when boldly grouped; for planting at the edge of woodland or shrubbery, where its waving silvery plumes stand out strikingly against the dark background, it is hardly surpassed. In our issue of November 1 particulars of this plant were given, which it may be interesting to recall: "For some years subsequent to its introduction in 1848 this was botanically known and still is generally met with in gardens as *Gynerium argenteum*, but now we believe it is correctly called *Cortaderia argentea*. Differences of opinion may exist as to the necessity for changing the name after it has once become thoroughly fixed, but its great beauty at this season of the year affords no food for controversy, for it is in its way unapproachable. A good healthy tuft, with its

### WINTER SCHEMES FOR SUMMER COLOURING.

[Reproduced by permission from "Country Life."]

From the foothills of the Rocky Mountains to my water garden at Broughton seems a far cry indeed; but with a cloudless sky overhead, and the thermometer standing at 108° in the sun, it is not difficult to transport one's self in thought to the peacefulness of an English summer, even though the New Year is but seven days old, and the peaks of the great range, stretched out before one's eyes, are capped with winter snows.

I have often wondered wherein lies the undoubted charm of water in a landscape. It is not the boundless sea, with all its human restlessness, that I have in mind when endeavouring to solve this problem, but rather the humbler stream, or lake, or pond, possibly not beautiful in themselves, yet when fringed by plants and flowers how precious in the

massing of colour should be on the farther side, so that none of the beauty of reflection should be lost. To obtain this effect we group our Water Lilies, Arums, and other low-growing plants in the foreground, thus ensuring an uninterrupted view of the Shirley Poppies which play an important part in the colour scheme, and know of no more lovely picture than a succession of these (for we sow in autumn as well as spring) mingled with tall white Foxgloves, and the great flowering heads of the giant Hemlock towering above them. When the Poppies are a thing of the past, the pink Mallow will be found an excellent substitute. Hard by, amidst the tangle of *Rosa rugosa* and Briars, a gleam of vivid blue—a very carpet of the wild Geranium—forms a daring contrast, and there in semi-shadow the tall rose-coloured blossoming shoot of the bronze-leaved *Rheum* (which, to my joy, flowered last summer) has run a race with the giant Fennel as to which should succeed in casting the longest reflection on the surface of the still water. Delphiniums, flanked on either side by *Lilium croceum*, *Spiraea Aruncus*, the erect *Spiraea gigantea*, and the lovely rose-red *Spiraea palmata*, their toes virtually in the water (the latter rewarding us last summer for the protection we gave it during the spring frosts by an unusual number of flower spikes), *Arundo Donax*, and the great leathery leaves of the Gunneras, all mingle on the bank, to say nothing of the common Rhubarb, one of the



most valuable plants for bold effects I know. There is a tall-growing and exceedingly graceful Scabious, whose full botanical name I cannot recall to mind at this moment, which seems to love the moisture, and whose lemon-tinted flowers, rising from a carpet of the large blue Forget-me-not, form a charming contrast.

Great masses of *Epilobium* and *Lythrum roseum* are also valuable in a suitable position; but the touch of magenta in both makes it sometimes a little difficult to place them. The common Artichoke I also find provides a charming cool grey note, and is particularly effective when grouped with *Tritomas*, or the early Sunflowers. The *Polygonums* are useful if they can be kept within bounds, but they spread with an amazing rapidity: nor must I forget the *Iris*s, notably the tall yellow flag which grows in profusion when planted in the water. *Iris gigantea* prefers a drier spot on the bank. *Iris Kämpferi*, alas! we have tried and found wanting; and this has been one of my keenest disappointments in the making of the garden, for it is a very human failing that the heart's desire is for ever set on the unattainable. Having tried it in sunshine and in shadow, in semi-moisture and in a dry position on the bank, the result has always been the same—a few magnificent blooms the first summer, and then a gradual dwindling away, a sickly appearance amidst uncongenial surroundings. Personally, I am of opinion that it is the lime in our soil which is the arch enemy of the *Kämpferi Iris*, and in this I find I have the concurrence of no less an authority than Mr. Freeman Mitford, whose experience under similar conditions has been the same as mine.

Mr. Wilson, however, who was so successful with this beautiful species at Wisley, did not altogether share our view, and if any reader can throw further light on the question, such information will be most acceptable. It is unnecessary for me to dwell at any length on those invaluable additions to our water gardens—the hardy, coloured *Nymphæas*. They have taken kindly to the rich loam in the moat, and are now thoroughly established. Those I have found most satisfactory are *N. chromatella*, *N. sulphurea*, *N. carnea*, *N. Laydekeri rubra* and *Laydekeri rosea*, *N. ellisiana*, and the American variety *William Falconer*. These were all sunk in open hampers during April or May in 12 inches to 18 inches of water, the flowers reminding one of gorgeous jewels as they lie gleaming in the sun.

Shall we ever be given what all lovers of the *Nymphæas* are anxiously awaiting—a hardy blue variety? Treasured in my memory is the recollection of a garden near Cape Town, where the whole surface of a large piece of water is covered with the beautiful *N. stellata*

—a perfect sheet of blue, rendered even more intense by the African sky overhead. Truly a picture once seen, not easily forgotten. But it is time to recall my wandering thoughts. The purple shadows are lengthening as the sun sinks to rest behind the mountains, illuminating their eternal snows with a last gleam of tenderest rose colour. Another day has run its course, and ere long the dream which I have been dreaming will once again give place to reality. Nature will reawaken from her long winter sleep, and the flowers whose memory we have cherished will raise their heads to bid us welcome from a far-distant land.

BLANCHE GORDON-LENNOX.

Wolhurst, Colorado.

### THE HONEYSUCKLES.

THE Honeysuckles met with in gardens may be readily divided into two distinct groups by their habit of growth and manner of flowering. The difference in habit lies in one section being of a climbing nature, requiring the aid of something wherewith to support the branches, and the other being of a dense bushy habit. The climbing ones, the majority of which have at one time or another been known under the generic name of *Caprifolium*, are well represented by the two British species *L. Caprifolium* and *L. Periclymenum*, which during the summer months are two of the

flowering *L. fragrantissima*, and *L. tatarica*. Of the two groups the climbing one provides by far the greater number of really ornamental species, and nearly every one is worth cultivating in gardens. Although not very fastidious with regard to soil, Honeysuckles thrive best in that of a rich loamy character, and when planting it is advisable to make certain that the soil is good and has been well cultivated. The positions best suited to these shrubs require a little consideration, for although they may be worth growing, all are not suitable for the same purpose. The accompanying illustration gives a good idea of the value of the stronger growers for covering arches, and they are equally useful for covering arbours, smothering unsightly fences, growing in tumbled and tangled masses over large bushes, or for clothing in a picturesque manner groups of rough, gnarled branches of Oak, Elm, Holly, &c. For this purpose the two British species are excellent in almost any part of the country, while in the south-west counties or other favoured spots *L. etrusca* and *L. sempervirens* can also be used. For other uses, such as the covering of short pillars or posts, the stiffer and shorter growing species, such as *L. glauca* and *L. Sullivanii*, are very useful, while for rambling over a low fence or rough tree root the pretty little variegated variety of *L. japonica* has few equals. Planting Honeysuckles requires care, particularly

the section under notice. Adult plants of several species transplant badly, and it is advisable to obtain young plants in the first place rather than try to transplant specimens which have reached maturity.

Of the numerous cultivated species and varieties of Honeysuckles the following form a selection of the best:—

*L. Caprifolium*.—According to Bentham and Hooker this is distributed throughout Mid and South Europe and West Asia, and is only naturalised in Britain, Cambridge and Oxford being given as the places where it is found. In many respects it resembles the common Woodbine. The flowers are borne in whorls from the apices of the branches and from the axils of a few of the upper

leaves. They are yellow or reddish yellow in colour, fragrant, and are succeeded by orange-coloured berries. In good soil it grows from 15 feet to 20 feet in height. The flowers are at their best from May to July. The common name of this species is Goat's leaf or perfoliate-leaved Woodbine. A variety called major, with larger leaves and flowers, is in cultivation.

*L. etrusca*.—Although it is doubtful whether this South European species will prove satisfactory in the colder parts of the country, for the more favoured localities it is excellen



ARCH COVERED WITH HONEYSUCKLE IN AN OXFORDSHIRE GARDEN.

prettiest and most fragrant of our hedgerow plants, the latter being found almost throughout this country, while the former is met with in a few counties only. In this section the flowers are usually borne in whorls from the extremities of the branches, while those species of a bushy habit usually have their flowers in the axils of the leaves singly or two or three—rarely many—together. The name *Xylosteum* has been given to many of this set, and in some catalogues it is still erroneously kept up. Examples of the group are the British *L. Xylosteum*, the popular winter-



Making shoots quite 30 feet long it is valuable for covering high arches and pergolas. The stems have a purplish tinge and are clothed with large oblong, hairy leaves, main and side branches alike being terminated with immense inflorescences of deliciously scented yellow flowers, which with age vary in shade from pale to deep yellow. At Kew it is cultivated out of doors, but a much finer specimen is to be seen in the Himalayan house, the little protection thus afforded being fully appreciated by the plant. In nurseries it is often known as *L. gigantea*; the "Kew Hand List," however, gives *gigantea* as a synonym of *L. cetrusca*. A variety known as *superba* is in cultivation.

*L. flava*.—This is a North American species found in South Carolina and in the Catskill Mountains, New York, whence it was introduced in 1810. It has twining stems but it reaches no great height, being suited more for a short pillar or stake than a high building. The flowers are large, rich orange-coloured, and fragrant. They are borne in June and July. It is more suited for southern than for northern counties.

*L. glauca*.—Like the last named this is a North American species suitable for a short pillar. Its chief beauty lies in the deep yellow flowers and glaucous leaves.

*L. hirsuta*.—Like the majority of Honeysuckles this has been known by a variety of names, *L. pubescens*, the name under which Loudon described it, being one of the most common. It was introduced from North America in 1822. The leaves are broadly ovate and very hairy. The flowers are borne freely in June and July and are yellow. It grows 12 feet or 14 feet high.

*L. japonica*.—A very distinct Honeysuckle from China and Japan, and very suitable for quickly covering a low fence, group of rough poles, or other support. In good soil it is a rapid grower, making a dense tangled mass of thin wiry stems clothed with evergreen, ovate leaves 2 inches to 3 inches long. The flowers

are borne usually in pairs from the axils of the leaves and are deliciously fragrant; the colour is pale yellow. Of the several varieties in cultivation *L. j. var. flexuosa*, with dark green leaves and reddish stems and flowers; *L. j. var. halliana*, which is very like the type, but which continues flowering until well on into the winter; and the pretty golden variegated-leaved *L. j. var. aureo-reticulata*, commonly called *L. brachypoda var. variegata*, are the most distinct.

*L. Periclymenum*.—This is possibly the best known of all the Honeysuckles, for during summer its presence in the hedgerows adds beauty and fragrance to many a roadside all over the country. For covering a summer-house no better shrub can be found, for it combines beauty and fragrance with a good and picturesque appearance. It grows from 15 feet to 30 feet high, and is distinguished from *L. Caprifolium* by its greener and unjoined leaves. The flowers vary in colour, usually being reddish or buff coloured. Several varieties are in cultivation, of which the Dutch Honeysuckle *L. P. var. belgica*, a very free flowering, reddish coloured variety; *L. P. var. quercifolia*, a form with leaves resembling in shape those of the common Oak; and *L. P. var. serotina*, which flowers later than most of the others, are most frequently met with.

*L. sempervirens*.—It is only in the most favoured parts of the country that this—possibly the most lovely of the exotic species—can be cultivated out of doors with success, for although it lives outside at Kew it cannot be compared with plants grown under glass. Occasionally it is met with on walls doing well, and a year or two ago a good plant was growing and flowering freely on the south wall of a cottage as far north as Cheshire. It was introduced from North America in 1636, grows to a height of 15 feet or 20 feet, and bears ovate, glabrous leaves, and good-sized inflorescences of tubular flowers, which are scarlet outside and yellow within.

*L. Sullivantii*.—Like *L. flava* this is a North American species, suitable for clothing a short pillar. It is remarkable for its clusters of bright red fruits. W. DALLIMORE.

## THE FERN GARDEN.

### IDEAL FERN HABITATS.

IN the plant world, as in that of humanity, it is the exception rather than the rule for the individual to be naturally placed under such favourable conditions of environment that its potentialities can be developed to the utmost. As a rule the all but inevitable struggle for existence necessitates some sort of compromise, which may mean such a degree of handicapping that the real merits and capabilities are hardly at all developed. Hence in the Fern world we frequently find that, although Ferns as a rule are constituted to flourish in shady, damp, and sheltered situations, and although by virtue of their robust and bardy nature they manage to exist in places where these essential needs are but very poorly provided, the result is that they present stunted, unattractive growth with but a trace of the natural charm which more favourable conditions would enable them to develop. Nature, with her usual knack of adapting her creations to the most varied conditions, has, in the course of aeons of time, endowed many of the original shade and moisture-loving Ferns with the capacity to withstand both drought and sunshine, as we may see evidenced in such genera as the Cheilanthes, Notbochlanas, and even in our familiar *Ceterach officinarum*. In all these cases, however, we find the adaptation to detract from the foliose, pendulous grace of the major portion of the Fern tribe, the fronds of necessity become more or less hard and leathery, and thus, though undoubtedly pretty when at their best, cannot for a moment compare with the stately grace of the Tree and other Ferns which fill our antipodean valleys or even with the smaller but yet delightful frondage of our largest native Ferns, such as the Lady, Male, and Shield Ferns, which deck the sheltered combs of our humid western counties.

The aim of gardeners is to obviate, as far as possible, the natural handicapping to which we have alluded, and to provide the plants taken in hand with as nearly as possible ideal conditions of growth, and supplied with all incentives to perfect development. To do this effectively we have, however, in the first place to study Nature to ascertain under which natural conditions the plants are at their best, and, having acquired this knowledge, to apply it as far as practicable to cultivation. Thus to see our native Ferns at their best we must visit one of our deep western valleys, where a rushing, tumbling stream brawls between high, rocky banks hemmed in by trees, the two latter sheltering admirably from boisterous breeze and broiling sun. The very air is humid from the proximity of the stream, and the leafy, rocky soil is never dry. Here are all the essential conditions of Fern life at their best, and we see the results all around us in waving masses of feathery frondage, while a closer inspection will show the ground beneath to be covered with flourishing colonies of *Blechnum*, Oak Fern, Beech



THE ROYAL FERN (*OSMUNDA REGALIS*) BY WATERSIDE.



Fern, *Polypodium vulgare*, and others of the smaller Ferns. Leaving the glen and reaching an adjacent road we may still find all these, but in a much smaller state, and in many cases stunted and torn by the wind, and thus void of all the charm of their more favoured neighbours. Presently, however, the road dips into a hollow and becomes a shady cutting, walled in on either side by rough, retaining stone dykes, while overhead the trees almost meet, and thus once again we have a Fern paradise, but with a difference. Nature, as we have said, has varied her creations to such varied conditions. Here we have more air and light, and the loose stone dykes afford a combination of perfect drainage with constant dampness, that better suits the tastes of other species of Ferns, which, moreover, under the freer conditions of growth in the dell we have left, would be overgrown and enfeebled.

Hence in these walls we find colonies of the various Spleenworts, associated with Polypodies, common, Oak, and Beech Fern, and last, but not least, the beautiful, strap-fronded Hart's-tongue will be found, not merely in a comparatively small state in the chinks and crevices, but also in robust condition along the foot. Such dykes, indeed, form ideal hunting grounds for the Fern enthusiast, for besides the wall or rock Ferns proper there are sure to be innumerable seedlings of the dell species, which, being precluded by their position from becoming huge, full-grown specimens, make up for this by their numbers, and in this way increase the hunter's chances of a find. In such a lane or cutting we have frequently found no less than fifteen or sixteen different species, and it is clear, therefore, that a smoken artificial rockery shaded judiciously by trees may represent one of the ideal habitats we have in view. Some Ferns, however, are more exacting in their water requirements than even the dell Ferns aforesaid, unless, indeed, that dell develops here and there—as it well may do—into a local bog or marsh. In that case we may find a colony of the Royal Fern (*Osmunda regalis*) lifting its tall, fertile fronds from amidst an abundant circle of more drooping barren ones; a grand sight indeed under ideal conditions. On the banks of the Upper Dart we have seen this splendid Fern with huge fronds 10 feet high covering the stream-banks like a coppice. The secret of such growth is that although the crown of the Fern is well above the water-level, its deeply penetrating roots are really below it, and, given these conditions, the *Osmunda*, owing to the toughness of its fronds, will stand considerable sunlight without damage. Naturally, this fact renders it particularly adapted for water-side culture generally, in proof of which we need only refer to our illustration of a beautiful specimen, the condition of which attests how perfectly its particular needs have been met and how entirely the ideal has been realised.

CHAS. T. DRURY, F.L.S., V.M.H.

## GARDENING OF THE WEEK.

### KITCHEN GARDEN.

#### THE HERB BORDER.

**B**Y no means the least important part of the kitchen garden, this should now receive careful attention so that a constant supply is assured. All the perennial kinds should be surface dressed. Mint should have all the old growths cut clean to the ground, using a pair of shears for the purpose, and the surface dressed to the depth of 2 inches either with well-decayed leaf-soil, or, better still, old hot-bed material passed through a coarse sieve. At the same time lift sufficient roots, box up, and place in cold frames or cool orchard houses for supplying green growths early in the year.

Lemon Thyme thrives best in a light gritty compost, the sweepings from the roads answering well. Keep the plants well supplied with this and they will last in a healthy vigorous condition for years. Common Thyme should be dressed over

with old hot-bed material, and Chives receive a dressing annually of well-decayed farmyard manure.

#### PARSLEY

which was sown late in the season and has not been lifted and planted in frames, if likely to be required during the winter, should have some protection. Either place old lights over it, or failing this erect a light wooden framework and cover with mats in severe weather. That which is growing in frames if planted as advised will now be well established, and the lights should be kept off whenever the weather will permit, making use of the light for covering only during snow and severe frosts, for the hardier it is grown the better will it be.

#### CAULIFLOWERS.

being wintered in frames, owing to the mild autumn, are in a very forward condition, and every endeavour should be made to keep the plants as stocky and hardy as possible or they will become much drawn before the spring and suffer in consequence. If by any chance this crop has failed, sow now in boxes Walcheren, Magnum, or Early Forcing. Raise the plants under glass in a cool house, prick out into other boxes as soon as ready, and if grown on gently through the winter, though a little more trouble, they will be little behind the sowings made in September.

#### RHUBARB.

Lift and place in heat good quantities of the early kinds, or it may be forced along by placing tubs or suitable pots over the crowns where they are growing, but sufficient material must be placed over them to create a gentle heat. One part long stable litter to three parts Oak or Beech leaves is best for the purpose.

#### SEAKALE

should now be introduced in large quantities to the Mushroom house to keep a regular supply, or brought on under pots in the open in a similar way to Rhubarb.

#### TOMATO PLANTS

which are intended to fruit all through the winter will now require a good deal of attention. The flowers should be fertilised as they open daily, and the temperature increased, but admit air on every favourable occasion. Do not over water the plants and keep the houses as dry as possible, or in all probability the foliage will be attacked by fungus.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

## THE FRUIT GARDEN.

#### PINE-APPLES.

In cultivating the Pine-apple, its winter treatment, owing to the short sunless days, demands perhaps closer attention than that of any other season. No attempt at that time should be made to hasten the growth of the plants, as it would weaken them to a degree that would lead to disappointment. All the light possible should be afforded by washing the glass of the structures, and during spells of severe weather, in order to prevent the necessity of using an excessive amount of fire-heat to keep up the desired degree of temperature, the houses should be covered at night with a suitable protector. Fruiting plants of Smooth-leaved Cayenne, Charlotte Rothschild, and other good winter fruiting varieties should have a night temperature of from 65° to 70°, with a day rise of 10°, and a steady bottom heat of about 80°, while a moderately humid atmosphere should be upheld by damping the floors and surface of the beds in order to promote free swelling of the fruits. Examine the plants weekly, and give enough tepid water, to which a little Peruvian guano or other suitable fertiliser is added, to keep the soil moist throughout. Excessive moisture, however, either at the roots or atmospherically, will cause an undue growth of the crowns, and thus blemish the symmetrical appearance of the fruit. Remove suckers not required for propagation, and discontinue watering each plant when its fruit commences to colour. The Smooth Cayenne after being cut from its plant will keep

in good condition for some considerable time if placed in a dry cool room.

#### SUCCESSIONAL PLANTS.

Queens intended for starting early next January to afford ripe fruit in June should be now strong sturdy plants, and they should for the present have their growth arrested by the maintenance of comparatively low temperatures, viz., that for the night ranging in accordance with the condition of the weather, from 55° to 60°, with a slight day rise, air being admitted, when by the aid of solar warmth it reaches 65°. A bottom heat of from 75° to 80° should be aimed at, but in order to secure this it may be at times necessary to readjust the valves, owing to forcing the fires to keep up the required atmospheric temperature in severe weather. A moderately dry atmosphere compatible with the low state of the temperature must be preserved, though it will be necessary when the fires have to be pushed, to guard—by damping the floors, &c.—against its becoming injuriously dry. During the resting period careful judgment is needed in watering the plants, for serious injury accrues from either too much or too little being given.

Young plants of the Queen variety raised from suckers potted in August or early September are now well rooted, and should be subjected to similar treatment as recommended above for successional plants. Those of Smooth-leaved Cayenne, however, especially if they were late in being potted, should be afforded sufficient warmth and moisture to keep them gently growing; for this about 5° more than advised for successional plants of Queens will answer well.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

## INDOOR GARDEN.

#### GARDENIAS.

THE earliest plants that have had a season of comparative rest in an intermediate temperature and have made strong and well-matured growths may now be placed in the warmest part of the stove. Liberal feeding should be practised. Later batches that have completed their growth may be placed in a lower temperature, which will hasten ripening of the growth. Feeding must in their case be discontinued and less water given them until placed in heat again. It is not advisable to keep them in a cooler temperature too long or the flower-buds may drop. A sharp look out must be kept for insect pests and measures taken to eradicate them.

#### POINSETTIAS

that are beginning to show their bracts should be fully exposed to all possible light, and feeding should be discontinued. The later plants should be liberally fed and afforded a warm temperature in order to encourage strong, healthy, and well-matured growths, which are essential to the forming and finishing of fine bracts.

#### BOUVARDIAS.

When the pots are well filled with healthy roots frequent doses of weak liquid manure will be beneficial, and presuming the plants to be backward in flowering, which they are in most districts this season, they should be placed in a temperature of about 55° or 60°, where the blooms will soon open. Green fly is sometimes troublesome. Fumigation is a certain cure, but it is best used as a preventive. Red spider is liable to attack these plants, but this a sign of insufficient moisture at the roots more often than in the atmosphere.

#### CYCLAMENS.

For a succession of these plants another sowing should be made now, as advised in former calendar notes. Keep the seedlings near the glass and never allow them to suffer from want of water. Vaporise as a preventive rather than a remedy against aphid. The earliest of last year's seedlings are now in the height of their beauty, and as the pots are full of roots the plants will take almost unlimited supplies of water. When the flowers are taken from the bulb they should be



done by a smart pull; when cut the stems bleed and exhaust the plant.

#### BULBS

that are plunged in ashes should be examined occasionally, and when the tops begin to grow they should be removed into a frame and the light subdued until the natural colour is gained. Let them progress slowly until the time arrives for forcing. It is easy from now onwards to secure a continuous supply of flowering plants by forcing successional batches until the final lot will flower naturally without any artificial assistance. Cool, slow treatment of most bulbs produces the finest display, and the flowers last for a longer time in perfection. JOHN FLEMING.

Wexham Park Gardens, Slough.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### GRAPES FOR EXHIBITION.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am indebted to your correspondent, a "Grape Grower from Scotland," for the courteous way in which he places before your readers his reasons for differing from me in his estimate of the Black Alicante Grape. At the same time, I must say I am somewhat puzzled by the questions he puts to me. The point of disagreement is seemingly that in giving my estimate of this Grape I stated that it was a variety of easy culture. What does your correspondent say of it himself? He says: "Now we hear this remark so often, and we know that in the opinion of most judges this variety is considered so easy to grow, that it ought not to count so high as most others that may be placed against it in competition." This weighty evidence adduced by "Grape Grower's" own pen, in confirmation of my estimate of the Grape as to its being of easy culture, exempts me from saying more on this point, and I can only reiterate what I have said before, that this is one of the easiest of all Grapes to grow, one that crops heavily, and puts on a dense and beautiful bloom in a short time; the Vine has a sturdy and strong constitution, and, as an amateur's black Grape, either for exhibition or for dessert in winter, it is of all others, in my opinion, the best. As regards its adaptability and value as a market Grape, I will call Mr. Peter Kay as witness. This is what he says of the Alicante in a paper read before the members of the Horticultural Club some time ago: "My own experience is that taking houses of equal size, one planted with Alicante, one with Colman, one with Muscat of Alexandria, and one with Cannon Hall, and taking, say, five years' result of sales, Alicante would come out the best, Gros Colman next, then Muscat of Alexandria, and last Cannon Hall." It is interesting, and also I must say surprising, to hear that such accomplished Grape growers as Mr. Lunt and Mr. Kirk find a difficulty in growing this variety, and your correspondent unconsciously, no doubt, is rather hard on me in asking me to give the reason why. It would be interesting to hear from these gentlemen as to their experience in the culture of this Grape.

OWEN THOMAS.

### CACTUS DAHLIAS FOR THE GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—IN THE GARDEN for the 18th ult. I gave a list of the finest Cactus Dahlias, basing my choice mainly on their merits as exhibition varieties, though at the same time not forgetting their value in other respects; but now, on noticing Mr. S. W. Fitzherbert's note asking for those sorts which are most suited to the decoration of the garden, I give the names and colours of some twenty for that purpose. First, however, before going into this, I would point out one or two facts which seem to be lost sight of by many amateurs, who I am afraid expect too much of the Cactus

Dahlia, or, in other words, expect it to grow, thrive, and produce an abundance of first-rate flowers without the least attention whatever. How often do we see Dahlias planted in shrubberies where there is not enough nutriment to support a weed, or planted in borders which are filled with perennials and so cannot have the soil properly prepared for them; then, when failure results, the Cactus Dahlia is condemned as useless except when pampered and coddled to get it to perfection for an exhibition. We have heard the old tale of bad habit, hidden bloom, and general failure so long that it begins to get stale. Many varieties of Cactus Dahlias are grand when properly grown, but once and for all let me say that the Cactus Dahlia will not grow in situations unfit for anything else. It must have culture, and good culture, too. We have bushes of Cactus Dahlias even now (late October) which are a complete mass of bud and flower. Several varieties are included which I mentioned on the 18th ult., these fortunate flowers possessing exhibition qualities and being also useful for decoration and cut bloom. The following are the best:—

*Mrs. Edward Mawley*.—Yellow.

*Mrs. Winstanley*.—Orange-scarlet.

*Mrs. J. J. Croire*.—Yellow.

*Uncle Tom and Aunt Chloe*.—Dark maroon.

*Gabriel and Richard Dean*.—Red, tipped white.

*Alpha*.—White ground, speckled crimson.

*Britannia*.—A most useful Dahlia.

*Florence*.—Yellowish orange.

*Floradora*.—Mentioned last week, but not described. A flower which produces an enormous quantity of bloom, the petals being claw-shaped. The colour is purplish crimson.

*General French*.—A bushy-growing, wiry-stemmed variety, producing medium-sized flowers of a terra-cotta colour.

*Mrs. McKergow*.—Amber colour, dark foliage, free-flowering and upright in growth.

*Major Hobbs*.—Clear rose, too heavy for exhibition, but a good deep flower of a beautiful colour.

*Rozenhagen*.—Rosy lilac, black wiry stems, small flowers freely produced; a variety raised in Holland, and useful as a garden plant.

*Wm. Jovett*.—Brilliant scarlet, tall grower, exceptionally long stem, and a late autumn-flowering variety.

*Capstan*.—An older variety, dwarf, and producing a number of blooms of a soft brick-red colour.

*Countess of Lonsdale*.—An old variety, but a favourite for cut bloom and decoration.

*Magnificent*.—Still one of the best for all purposes, and especially good as a garden variety, its blooms seldom coming shallow when undisturbed.

A good number of older flowers might be mentioned if I trespass upon the decorative section proper, but that I do not wish to do. Apart from these the following eight are all good:—*Stella*, *Princess Ena*, *Mrs. John Goddard*, *Beatrice*, *Alfred Vasey*, *Captain Dreyfus*, *Pretoris*, and *Mars*. Even now we have not mentioned a white, but for this we would recommend *Miss Webster*, *Lord Roberts*, or *The Queen*. DAHLIA.

### DRESSED CARNATIONS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—It was with interest that I read the remarks on the subject of dressed Carnations in a recent issue. Why, indeed, should Carnation blooms have to be subjected to such mutilation as entirely to lose their natural beauty and form before they are considered fit to compete for prizes at our Carnation shows? If flowers are defective in any way they should be left at home; if they have no defect bring them to a show; but do not let us have them served up on paper plates with nothing but the petals showing, and not even all of these.

What do people go to shows for? I think for two purposes, firstly, to see beautiful plants well grown; and, secondly, to make notes of what they would like to grow themselves. Now imagine anyone going to an exhibition of dressed Carnations with the second object in view, not to mention the first.

They see Carnations, or rather a certain percentage of the petals of Carnations, and they take down the names of those they fancy; they are not allowed to see the calyx, much less the stalk; they send an order for plants perhaps, and in due course receive them. They plant them with great care in the garden only to find that the majority die. Now, this is not a state of things that is at all as it should be, and I feel sure your readers and everyone, except, perhaps, the professional "dresser," will gladly welcome the change which I hope is coming when we shall see these lovely flowers, exhibited in vases or bowls, cut with long stalks, I do not mean each bloom cut separately, but the whole stem with flowers and buds on it, arranged with their own grass in such a way that one can see at a glance what the bloom is, how it grows, and in fact the general habit of the plant which produced it.

How much better this and more interesting than the ridiculous pastry-cook fashion of dishing them up. And let us have more of the hardy border varieties, for I think these are what most people want. I grow all mine entirely in the open, and they do well and have given a profusion of bloom this season through July, August, and September, and even to-day (October 27) there are blooms on many of the plants. This I have only done by discarding numbers of varieties and keeping only those which are hardy, and raising plants from seed, from the best of which I keep the layers, and I find these make stronger plants generally than those which have been reproduced from layers for a greater number of years. As to which are the best varieties to grow I think this depends greatly on the locality and soil. Procure if you can plants that have been proved to succeed in soil similar to your own, and get them from a colder rather than a warmer district.

Bronwyflla, St. Asaph.

W. A. WATTS.

### CUTTING DOWN HARDY PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I was glad to find Mr. Crook (page 162) calling attention to the barbarous practice of cutting down many of our hardy plants immediately the flowering is over. Nothing can be more detrimental to any plant than to deprive it of its foliage just at the time it is most required. How is it possible for the roots to perform their proper functions if we deprive them of their leaves and stems? I have often been grieved to see large plants of Delphiniums, Pæonies, Pyrethrums, and sometimes the Lily, cut down close to the ground directly flowering is over, and after this operation has been performed for a few years the owners of the plants wonder why these look sickly and cease to throw up strong flower-spikes. The wonder to me is how they manage to live at all after such rough treatment. No amount of help in the way of manure water or any other stimulant will compensate for this annual cutting down. Where space cannot be devoted to these large growing subjects it would be far better to grow plants of less robust habit than annually to cut down after flowering some of the finest and most showy of our herbaceous plants. A little forethought at the time of planting, with a little judicious arrangement, would often obviate the necessity of the practice. Mr. Crook makes some capital suggestions how to get over the difficulties, and I see nothing objectionable in the foliage of these plants. On the other hand, I see much to admire in them, for their varied tints often make a good contrast and help materially to brighten up the herbaceous border.

T. B. FIELD.

Ashtedthorpe Hall Gardens, Norwich.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I note that Mr. Crook is anxious for more opinions on the above subject. The question appears to me to be simplicity itself, and not to admit of two opinions. I cannot imagine anyone conversant with horticulture denying that cutting down sappy stems to the ground-level must weaken a plant. Some vigorous subjects, when grown under the best cultural conditions, bear the check entailed without appearing to suffer, just as a strong man can stand a little blood-letting without feeling the





PEAR MARECHAL DE LA COUR. (Two-thirds natural size.)

worse for it, but both are weakening operations. It has been found that Delphiniums are sufficiently robust to endure this cutting down without material detriment, and it is with this knowledge that Messrs. Kelway give the advice quoted by Mr. Arthur Goodwin (page 203). Certainly the finest autumnal display is produced by this method. In a garden that I know the great rows of Delphiniums are cut to the ground-level immediately the flowers fade, and blossom again grandly in the autumn, but it is only sturdy subjects such as these that fail to show signs of the drain of strength that results from removing the whole of the flower-stems and thus depriving the plant of the sap that would naturally return to it. In plants of less vigorous habit this system, as is shown by Mr. Crook's examples, is followed by palpable loss of strength manifested in a failure to flower the succeeding year. In weakly-growing plants the removal of the whole of the sappy flower-stems might easily prove fatal. Doubtless the best method to conserve the strength of any plant is merely to cut the flower-heads off, and thus prevent it exhausting itself by perfecting seed. Anything in excess of this must mean weakening it more or less, very possibly infinitesimally so, but the loss of every drop of sap means a proportionate loss of strength.

S. W. FITZHERBERT.

## NEGLECT OF BRITISH FERNS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—With regard to the note on the above subject (page 281), it is, I should say, most probable that we shall have to wait till fashion takes another turn before the many beautiful hardy Ferns will take the position in gardens that they held about thirty years ago. To a certain extent the tender Ferns can also be included in the same category, for though prizes are offered for them, and a few kinds are grown in immense numbers for decoration, the general collections are not maintained to the same extent they once were, not only in private gardens but also in nurseries; in the last named such would not be the case if there was a paying demand for them. Fashions in plants seem to move more or less in cycles, as will be noted by those who remember the many beautiful shrubs introduced from Japan by Robert Fortune and J. G. Veitch, and the prominent position for a time held by flowering shrubs in general, then their period of comparative neglect, while now they have attained a popularity never before equalled. Zonal Pelar-

goniums, too, are again in fashion after being long under a cloud, but conifers are not planted nearly so largely as they were forty years ago. The show and tricolor Pelargoniums of the sixties are now rarely seen, and the different stove foliage plants lacking the stimulus given to their culture by the numerous introductions of thirty-five years ago from the South Sea Islands are, apart from a few subjects, not nearly as popular as they once were. On the other hand, hardy plants in general, Chrysanthemums, and Begonias are now grown more than ever.

H. P.

## THE FRUIT GARDEN.

## HARDY FRUITS IN SEASON.

PEAR MARECHAL DE LA COUR.

**E**QUALLY well known is this Pear under the name of Conseiller de la Cour, it has been grown in this country for at least half a century. I do not think its merits have ever been fully recognised by fruit growers. In the southern counties I consider this variety one of our best early November Pears, and though, of course, it cannot compete with Doyenné du Comice as regards flavour, it is really excellent when given good culture. Many fruit lovers like the peculiar sub-acid flavour of this Pear. The fruits are very handsome when gathered from wall trees, but I find our best flavoured fruits are those grown on pyramid trees in a well-drained soil. The late Mr. R. D. Blackmore thought this one of the finest Pears in cultivation. For heavy land I do not recommend it; the tree is hardy and a good grower. On a chalk soil it does well as a standard if grown on the Quince stock, and is much valued as a market variety during early November.

G. WYTHES.

## SINGLE CORDON FRUIT TREES.

NATURALLY it is to the interest of the market grower to produce Apples and Pears in quantity, and therefore he has only to concern himself with

a limited number of varieties which suit his purpose, but with amateurs and owners of private gardens the case is entirely different. Apart from the interest there is in growing a number of varieties, there is the fact that by planting suitable sorts a succession of good fruit is obtained over a long period, and, now that the planting season is here, I make no apology for singling praises of the single cordon system as an economical method of growing hardy fruit in private gardens, particularly small ones. It may not be necessary to describe a single cordon, but briefly it is a tree with one stem, and the object of the cultivator is to get that stem furnished from base to summit with fruit-spurs. This done, the amount of fruit that one tree will produce is considerable, and the examples obtained from cordon trees as a rule are unsurpassed.

## SINGLE CORDONS FOR WALLS.

In the old days the great object was to furnish garden walls with espaliers, and, judging by the symmetrical appearance of many time-honoured specimens to be seen to-day, there is nothing new about the art of training fruit trees. But we move quickly in these times, and the furnishing of walls with horizontal espaliers was a slow process—too slow, indeed, for the demands of the present. Besides, an espalier takes up a good deal of room, and the man with one wall could only accommodate a single tree, and in consequence only grow one variety. But the introduction of the single cordon system has done away with all this. It is

true far more trees are employed, but it is the quickest way of furnishing a wall and the most profitable, because from a batch of cordons many a crop of fruit may be obtained before an espalier has more than half covered the space. It is for comparatively low walls, however, that single cordons more particularly commend themselves. An espalier tree on a 10-foot or 12-foot wall when fully established is practically a permanent institution, but on a wall half that height its energies have to be checked just when it has reached a useful size. Above all others the single cordon tree appeals to the amateur with only a small garden. His walls are low, and generally the space is limited, but he has a commendable desire to grow a variety of Apples and Pears. How can he do it better than by employing single-stemmed trees that can be grown 18 inches apart, and may be placed in positions where a trained tree would be out of question for the want of room?

## CORDONS IN THE OPEN.

But a wall or a fence is not absolutely essential for the successful culture of single cordon trees, and they may be readily grown in the open garden. "I cannot grow fruit trees in my small garden: there is not enough room," is a complaint frequently heard, and it is a reasonable one when we take into account the developing capacities of bush and pyramid trees. The single cordon steps into the breach, and the difficulty vanishes. All that is necessary by way of preparation is to fix two stout upright posts in the ground about 6 feet high, with one or two upright supports in between, and stretch four strands of wire from one to the other. The framework is then provided for the support of the trees, which should be planted at from 18 inches to 2 feet apart, and have the stems laid in parallel to each other at an angle of about 45°. It will be seen from this that a number of trees can be accommodated in a single row across a garden, though the latter be small, and a selection of varieties be represented for succession. For the purpose of planting it is advisable to take out a trench along the entire length about 18 inches wide and 12 inches deep. The subsoil should be broken up to the depth of another 12 inches, and then a portion of the surface soil be replaced along with the addition of mortar rubble, wood ashes, or road scrapings if the soil is retentive. This will reduce the depth to about 6 inches, at which the trees may be placed in position. Cover the roots carefully with soil,



tread this firmly, and place a mulch of well-decayed manure on the surface. In the selection of trees let me advise good specimens. They will cost a little more to begin with, but they are cheaper in the end. Three or four year old trees are the best, because their foundation has already been laid in the nursery.

#### CORDONS ON ARCHES.

Here again we have another purpose for which single cordon trees are well adapted. Over narrow garden walks, single arches placed at intervals are anything but unsightly. On the other hand, they are attractive objects, and, what is more to the point, useful if furnished with fruit trees. For the purpose in view a single arch of iron, upright at the sides and bent over the top, is required, and a tree may be planted on either side, the leaders being encouraged to extend till they meet, when they may be stopped and treated as spurs. I know several small gardens where cordons are grown in this way, and not only add to the general appearance of the garden but useful crops of fruit are obtained from them.

#### PRUNING CORDON TREES.

For the purpose of this article the operation of pruning can be summed up in a few words. In the first place the idea is to keep the tree to a single stem, hence the necessity for removing all side shoots. This can partly be done in the summer with advantage by going over the trees early in August and pinching back the growths to five or six leaves, completing the operation at the winter pruning by shortening the shoots to two buds. Mistakes are often made with single cordon trees through being in too great a hurry to get them to the top of the wall or fence by leaving the leading shoot of the current season's growth at its full length. The consequence of this is that the lower buds on the shoot are apt to remain dormant and not break the following year, and a length of bare spurless stem is the result. To avoid this the leading growth should be shortened back to about three parts its full length until the tree has reached the limit, after which it may be treated in the same way as the side shoots.

#### VARIETIES OF SUITABLE APPLES AND PEARS.

Nearly all the best varieties of Apples and Pears will succeed as cordons, but as a guide to intending planters I append a short selection of varieties arranged in order of ripening:—Apples (culinary): Duchess of Oldenburg, Lord Grosvenor, Ecklinville Seedling, Bismarck, Lord Derby, Warner's King, Cox's Pomona, Golden Noble, Peasgood's Nonsuch, Lane's Prince Albert, Newton Wonder, and Alfriston; dessert, Beauty of Bath, Devonshire Quarrenden, Worcester Pearmain, King of the Pippins, Ribston Pippin, Cox's Orange Pippin, Allington Pippin, Gascoigne's Scarlet, Hornead Pearmain, and Sturmer Pippin. Pears: Jargonelle, Marguerite Marillat, Williams' Bon Chrétien, Clapp's Favorite, Beurré Hardy, Emile d'Heyst, Louise Bonne of Jersey, Doyenné du Comice, Pit-maston Duchess, Thompson's Winter Nelis, Glou Moresan, and Josephine de Malines. G. H. H.

## NURSERY GARDENS.

### MESSRS. THOS. CRIPPS AND SON, TUNBRIDGE WELLS.

FOR the production of both fruit trees and ornamental trees and shrubs the county of Kent has a most enviable reputation amongst horticulturists, and it would have been disappointing in a Kentish nursery to find this reputation not maintained. In visiting Messrs. Cripps' Tunbridge Wells nurseries, however, we did not anticipate disappointment, for we still remembered the



THE RHODODENDRON WALK IN THE TUNBRIDGE WELLS NURSERIES.

meritorious displays of Japanese Maples, conifers, and various hardy shrubs which they annually exhibit at the great London plant shows.

Situated as the nurseries are on a hill, or rather on various hills, in the highest suburb of the town, they have the advantage of a great variety of aspects, and one can also depend upon the plants being hardy and making sturdy growth. As showing how good the soil is here, there are several trees that have reached a good age and are of remarkable dimensions; we might mention the Turkey Oak, *Andromeda floribunda*, the Golden Catalpa, *Ailantus glandulosa*, Golden Tulip Tree, several Acers, &c. A good idea of the vigour with which Rhododendrons grow may be had from one of the accompanying illustrations, which shows one of the principal drives through the nurseries. This is bordered on either side by a variety of trees and shrubs, in which Rhododendrons predominate. One can well imagine how beautiful a sight these banks of Rhododendrons must present in the months of May and June when their flowers are in full beauty, and the neighbouring residents are fortunate in being able to wander at will through these nursery grounds in Rhododendron time. It would be useless to mention varieties, for the collection here is one of the most complete. Should the visitor to the Tunbridge Wells nurseries chance to be there during early autumn his attention undoubtedly would chiefly be centred on

#### THE JAPANESE MAPLES,

of which Messrs. Cripps have one of the finest collections in Europe. They are therefore well qualified to judge of their merits, and this is their opinion: "Japanese Maples form one of the most beautiful introductions to our ornamental deciduous trees and shrubs introduced of late years; having grown them in our nursery borders for several years unprotected and uninjured by frost, we are enabled to recommend them with every confidence in their being perfectly hardy. They are specially suitable and effective for borders and shrubberies; in pots for conservatory decoration they are invaluable." We know of no hardy shrub that in the autumn can equal the Japanese Maple for variety and brilliancy of leaf colouring. Some there are of such an intense crimson as almost to be black; others are scarlet, pink, bronze, and tints too numerous to mention, if not impossible to describe.

Of new varieties we remarked three particularly beautiful ones—*Acer palmatum linearilobum gracile* Crippsii, the dark purple leaves deeply cut; *A. p. atropurpureum tunbridgense*, with bold foliage of a rich dark colour; and *A. p. atrosanguineum* Fieldii, more brilliant than the variety *sanguineum*. Of the better-known ones that were strikingly attractive, by reason of their rich colouring, we noticed *A. japonicum*, *A. aureum*, *A. laciniatum*, *palmatum dissectum purpureum*, *p. palmatifidum*, *p. roseum marginatum*, *p. versicolor*, &c. We must not omit to mention the golden-leaved Maple, *Acer pictum aureum*, which is a most handsome shrub; it has received an award of merit from the Royal Horticultural Society. *Acer Negundo* variegatum, so well known as a valuable tree for the shrubbery, is largely represented in these nurseries. The Sycamore in numerous handsome varieties, and *A. tataricum* Ginnala, whose leaves are a most brilliant red in the autumn, are also worthy of special note. The collection of

#### ORNAMENTAL TREES AND SHRUBS

is very extensive. Among some of Messrs. Cripps' own introductions we might mention *Azara Crippsii*, the Golden Catalpa, *Phyllanthus Crippsii*, and *Ptelea trifoliata aurea*. Of other hardy trees and shrubs of great merit were remarked the ornamental-flowering Cherries, the Dogwoods, Thorns, *Cytisus*, *Cydonia*, *Eleagnus*, *Hamamelis*, *Hollies*, *Privets*, *Magnolias*, *Osmanthus*, Oaks, including the evergreen, scarlet, golden, Turkey, and Cork Oaks, numerous Elms, &c. Interesting amongst the large number of conifers is

#### RETINOSPORA OBTUSA CRIPPSII,

one of the best golden conifers we have. In growth it exactly resembles *R. obtusa*, while the colour of the foliage is a good golden-yellow. This conifer is said not to burn even when fully exposed to the sun. It has been awarded no less than three first-class certificates. Of other conifers in Messrs. Cripps' collection we would mention as being specially meritorious *Cupressus lawsoniana* Triomphe de Boskoop, *C. l. minima*, and *C. l. minima glauca*, two pigmy globular-shaped varieties; *Fitzroya patagonica*, *Picea concolor*, *P. nordmanniana*, *Retinosporas* in variety, weeping and golden Yews, the weeping *Wellingtonia*, and *Cedrus atlantica glauca*. Fruit trees, Roses in pots and in the open



ground, and forest trees are also extensively cultivated by Messrs. Cripps and Son. Stove and greenhouse climbers, notably Clematises indivisa and lobata, Cobæa scandens variegata, Lapageria alba, rosea, and rubra superba, Schubertia grandiflora (which grows most luxuriantly), and greenhouse Rhododendrons are important items amongst plants under glass. The collection of stove, greenhouse, and

#### HARDY FERNS

is a noteworthy one, the latter being particularly interesting, for few nurserymen now pay attention to their culture.

#### THE CLEMATIS

may be said to be a speciality with Messrs. Cripps, for not only do they grow a large number of plants, but many of the best-known varieties were raised in the Tunbridge Wells nurseries, for instance, Enchantress, Fairy Queen, Grand Duchess, Lady Caroline Neville, Lord Neville, Marie van Houtte, and Marie Lefebvre, all flowers of the lanuginosa type. Such are some of the most noteworthy features of a Kent nursery that has done credit to growers and county alike for the past sixty years.

#### MESSRS. R. AND G. CUTHBERT, SOUTHGATE, MIDDLESEX.

PASSING through this delightful part of the county of Middlesex a few days ago for the first time I was delighted with the aspect of the country. Extensive, beautiful, and sylvan parks are noticeable in all directions, with gigantic Elms and other forest trees in rich luxuriance. The Elms here remind one of the historical avenues of the great park and forest at Windsor; all were evidently planted about the same time, in the reign of King Charles II. This is not the only matter reminiscent of Royalty and forestry in this part of the county. The village of Southgate may not inappropriately be termed a Royal village, for we are told it was one of the gates (Southgate) of entrance into the Royal chase and forest of Enfield in days gone by. How long the village is likely to possess this arcadian character is uncertain, for the force of the increasing outward growth of the Metropolis has already engulfed in its embrace many similar villages in the neighbourhood. One can never speak or think of Southgate without the name of Thomas Baines recurring to one's mind, a name that will be famous for all time amongst gardeners as that of the greatest and most successful specimen plant grower of the Victorian era. It is opposite to one of the entrances to the estate where Baines served so long as gardener that the nurseries of Messrs. Cuthbert are situated. The same atmosphere of old-world dignity characteristic of the county pervades the nursery. This has been in the possession of the Cuthbert family for some generations, and what redounds much to the firm's credit is the fact that most of the employees and their families before them have shared the labours and fortunes of the firm for this long time. After hearing so much of late years of new systems and new glass houses, there are those amongst us who believe that anything old must be associated with that which is obsolete and useless, and that to be up-to-date the old must be sacrificed to the new. This is no doubt true to a certain extent, but there is no success more solid and enduring than that built on the foundation of the experience and example of past workers. This is the success stamped very clearly on all the work at Southgate nursery. I must confess that the magnet attracting me to the Southgate nurseries was the Azalea, a plant which Messrs. Cuthbert have made a great speciality of for many years, and especially of the Ghent and Mollis sections. The Azalea has obtained for them a world-wide reputation by reason of the magnificent groups they have exhibited at the Temple and other shows in London. Especially fine was the collection shown by them at the Temple show of the Royal Horticultural Society last year, and which, for well-grown plants, floriferousness, and lovely shades of colour has never certainly been surpassed, and, next to the Orchids and Roses, no collection of plants in

the exhibition was more admired. To give some idea of the immense trade in Azaleas in this country, it will suffice to mention that Messrs. Cuthbert alone import some 10,000 plants a year. Add to this the thousands-they grow in their home and branch nurseries, and some idea may be had of the popularity of this beautiful plant amongst the flower lovers of England. It is from selected imported plants that such specimens as those shown at the Temple show have been produced. The thousands grown at home are intended for forcing in pots and for planting on lawns and in shrubberies. Some of these were being potted up on the day of my visit, and better rooted, stronger plants, and, what is more important, a better set of flower-buds it would be difficult to find. The time at my disposal when I called was very brief, but it was long enough for me to notice the splendid collection of Camellia trees in robust health, and studded over with thousands of flower-buds. All are growing in houses apparently as old as the nursery, and the age of the specimen trees approaches in some cases to that of the houses in which they are grown. One also could not fail to notice the representative and excellent collection of flowering and foliage plants under glass, the up-to-date methods of propagation, the immense quantities of bulbs, and the attention given to all the best and popular hardy trees, shrubs, and herbaceous plants. O. T.

## SOCIETIES.

#### ROYAL HORTICULTURAL SOCIETY.

FLORAL COMMITTEE.—NOVEMBER 4.

PRESENT: Mr. W. Marshall (chairman), and Messrs. C. T. Druey, H. B. May, Jas. Walker, C. W. Knowles, J. F. McLeod, N. F. Barnes, John Jennings, Jas. Hudson, Chas. Dixon, Chas. Jeffries, C. J. Salter, H. J. Cutbush, Chas. E. Pearson, C. E. Shea, W. P. Thomson, E. H. Jenkins, W. J. James, and the Rev. F. Page Roberts.

Mr. H. B. May contributed in his usual tasteful style Tree Carnations with Ferns interspersed. Of the former we noted fine showy groups of Triumphans and Resplendent, both excellent, free-flowering, and scarlet in colour. Dwarfness and compact habit were also noticeable. Prince of Wales is an excellent crimson with lighter shade, good in form, free, clove-scented, and obviously of vigorous habit and constitution. Snowdrift (white) and Etna (scarlet) were also shown. Noticeable among the Ferns were Adiantum farleyense and Davallia Mooreana, and with Ficus radicans

variegata and Isolepis as a margin made a really interesting display. Silver Flora medal.

Messrs. William Bull and Sons, Chelsea, contributed a few select stove plants, Aralia triloba, Aglaonema costatum, a Maranta-like plant: Nephthytis picturata, very striking and beautiful; Polypodium irioides ramo-cristatum, Lillium sulphureum, Aralia elegantissima, Dracena Victoria, very fine; Maranta picta, very pleasing; and Phyllotanium Lindenii, a green, almost sagittate-leaved plant, with white rib and veins.

Messrs. James Veitch and Sons, Limited, Chelsea, had a magnificent table of their Begonia hybrids, some of which were remarkable, e.g., B. incomparabilis, B. Froebeli, B. polypetala, B. Mrs. Heal, of which some ten or twelve dozen were set up, making a dazzling bank of colour; the ever-flowering and compact B. Ideala, a most beautiful addition; B. Julius, a charming pink flower, and very free; the inimitable B. Agatha, which may at once be said to be a great improvement upon B. Gloire de Lorraine, the colour much the same, but with larger flowers and a better habit. B. Success is the darkest of these wonderful hybrids so far, and somewhat later in opening. For brightness, brilliant effect, and large handsome flowers freely borne, Mrs. Heal is the gem of the whole collection so far; indeed, a wonderful addition to winter flowers. Silver-gilt Banksian medal.

Messrs. J. Waterer and Sons, Limited, Bagshot, staged a fine lot of conifers and allied things, notably such Retinosporas as R. leptoclada and R. plumosa aurea, perfect examples in their way and well grown. Abies hookeriana, Juniperus japonica aurea, Taxus Standishi, Cupressus lawsoniana lutea, the variegated Savin, Sciadopitys verticillata (the Umbrella Pine), Abies concolor, obviously a good plant for isolation or grouping, and several good Hollies, notably Ilex balearica, and the yellow berried Holly being among these and in well fruited examples. The collection was extremely fresh looking and attractive. Silver Banksian medal.

Messrs. Barr and Sons, Covent Garden, set up a few hardy flowers and other things, as early Chrysanthemums, Kniphofias, Crocuses, &c.; also some late Michaelmas Daisies. Among these latter, Aster Amellus Framfieldi was good, and the white flowered Aster Tradescanti, pretty in its characteristic garb; Aster grandiflorus, too, is open. Late struck Chrysanthemums were also shown in pots, and many autumn Crocuses and Colchicums were shown in pans and pots. Fruiting examples of Phytolacca decandra were noted, and flowers of the white Scabiosa. An early-flowering Roman Hyacinth was also shown, together with others of the ordinary kind, which are much later in flowering.

Mr. Robert Foster, Nunhead Cemetery, had a fine circular group of Chrysanthemums in excellent condition and much variety. The kinds were not named, but evidently contained not a few of the choicer kinds of recent date, as well as some good older kinds, and with Pompous and incurved flowers made a display of a highly creditable character. A margin of Ferns was formed about the base. Silver Banksian medal.

Mr. C. B. Gabriel, Horsell, Woking, contributed a magnificent lot of zonal Pelargoniums resplendent in their many brilliant colours. The following were some of the kinds shown: Herrick (crimson-scarlet), Mary Pelton (pink, very large), Cerise (scarlet), Mary Beeton (white), Lady Laurier (orange-salmon), Lilian Duff (crimson), Lord Kitchener (scarlet), The Mikado (rose-scarlet), The Sirdar (magnificent crimson), Winston Churchill (a curious rose-purple, with white centre), &c. The exhibit as the production of an



JAPANESE MAPLES IN MESSRS. CRIPPS' TUNBRIDGE WELLS NURSERIES.



amateur was creditable in the extreme; indeed, many of the kinds could hardly be surpassed by the best professional growers of to-day. Silver Flora medal.

Messrs. J. Peed and Son, West Norwood, had a group of Begonia Mrs. Leo. de Rothschild, the plants freely flowered and with but little staking. The plants, of which there must have been some twelve dozen or more, were as yet hardly at their best, and will make a fine display for many weeks to come. A large and well-grown group of Begonia Moonlight (white) was also shown.

Mr. J. Russell, Richmond, staged a highly attractive lot of stove plants, Crotons, Alocasias, Dracenas, Pandanus, Marantas, Cordylines, and other things of like character, forming a group of exceedingly useful material, and for general decorative work in particular. The arrangement, too, was well carried out. A basket of Cupressus erecta aurea was also from Mr. Russell. It is a compact and small-growing kind. Silver Banksian medal.

Begonia Turnford Hall was shown by F. D. Lambert, Esq., Moor Hale, Cookham (gardener, Mr. John Fulford). The plants were well grown and flowered.

Messrs. W. Wells and Co., Limited, Redhill, set up a grand lot of Chrysanthemums of all sections of the flower, forming a group as varied and interesting as could be desired. In the background the single kind, Oldfield Glory, a pale sulphur tone, was very charming, and showed to advantage with reds and crimsons on either side. Some of the large flowers included Mrs. Pockett, W. Duckham, silvery rose; and Mrs. T. Wells, crimson. Among singles Miss Holden, yellow; Miss M. Anderson, Miss J. Ferguson, Lady Smith, and Annie Tweed, crimson, were among the best. To complete a very fine lot a margin of the showy Pompon sorts was arranged, and in their many and diverse shades made a very pleasing whole. In another direction Mr. Wells had some half dozen boards of choice specimen blooms, such as Miss Byron, Mrs. Pockett, W. R. Church, crimson; Mrs. Alexander McKinley, orange; Lord Lindlow, a monster flower, yellow, margined crimson; Mrs. G. Mileham, fine rose; Matthew Smith, orange; Mme. Herrewage, Lord Alverston, dark crimson, very glossy; and many more. A feature of this lot was a margin of some two dozen flowers of the yellow Mrs. Pockett; it is a grand kind without doubt. Silver-gilt Flora medal.

Cut Chrysanthemums were well shown by Percy R. Dunn, Esq., Brockley Park, Forest Hill, and reflected much credit for the many good blooms. Some of the best were Miss Hetty Dean, white; Mrs. Greenfield, gold; Miss E. Fulton, fine white; Mrs. G. Mileham, Sir H. Kitchener, George Lawrence, and Master C. Seymour. A pretty effect was secured by grasses and Asparagus Sprengeri intermixed with the blooms. Silver Banksian medal.

Mr. James Hudson, Gunnersbury House, Acton, contributed Cactus Dahlias in variety, showing their long-continued flowering this year. Many of the flowers were very good. A basket of Mesembryanthemum roseum was also shown.

Mr. Pye, Locking Park, contributed Ipomoea rubro-cerulea in the cut state, a beautiful gathering of flowers of this old Mexican climber so rarely seen now. Vote of thanks was accorded.

Kalanche mariorata, a plant of succulent growth, 4 feet high, with roundish ovate opposite leaves irregularly marbled with purple. The flowers are white and long, having a striking resemblance to the Nicotiana. Botanical certificate. From Messrs. Veitch and Sons, Limited, Chelsea.

#### CERTIFICATED PLANTS.

The following received an award of merit:—  
*Carnation Duchess of Portland*.—A good tree variety with fine flowers of a soft pink hue. The variety is deliciously scented. From Messrs. William Cutbush and Son, Highgate.  
*Chrysanthemum Harry Shrimpton*.—Gold, and copiously covered with chestnut red; a large imposing flower. From Mr. W. Seward, Hanwell.

*Chrysanthemum Mrs. J. Seward*.—A golden incurved variety of dwarf habit. From Mr. W. Seward, Hanwell.

*Chrysanthemum T. Wright*.—A grand crimson, lightly tipped gold on the centre florets. The florets are broad and massive, and the flower is of great size. Shown by W. Wells and Co., Redhill, Surrey.

#### AWARDS.

The list of awards given by the fruit and vegetable committee on the 4th inst., as published in our issue for the 8th inst., was incomplete. Awards of merit were given to each of the following:—

*Langley Bulbace*.—From Messrs. James Veitch and Sons, Limited, Chelsea.

*Raspberry November Abundance*.—A very fine autumn fruiting red variety, the result of a cross between Superlative and Catawissa. Also from Messrs. James Veitch.

*Apple Tampion*.—A fruit of excellent quality. Shown by Mr. Basham, Bassaleg.

*Grape Imperial Black*.—From Mr. J. H. Goodacre, Elvaston Gardens.

*Christmas Rhubarb*.—This variety was shown by Messrs. Sutton and Sons, Reading, and also by Messrs. Veitch, Chelsea.

#### BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

A most successful meeting of this society was held at St. John's Rooms, Redland, on Thursday evening, the 30th ult., when Mr. J. H. Jarvis, of the Newport Gardeners' Association, gave a most exhaustive lecture on the cultivation of pot Roses. Mr. E. H. Binfield occupied the chair, and there was a good attendance. The lecturer divided his lecture into sections, dealing with each in a very practical and masterly way, it being quite evident the subject was in good hands. He fully described every detail required for the successful cultivation of the queen of flowers—the houses most suitable, soils and composts, pruning and general treatment, each receiving very careful and practical description. He strongly advised buying from a recognised Rose grower rather than from the auction markets, the results from which were oftentimes very unsatisfactory.

Mr. Jarvis gave a good selection of the most suitable varieties for indoor cultivation, which he had himself proved excellent sorts. Insect pests he also described, and gave many useful hints for their prevention and eradication. In conclusion, he gave a list of twelve sound hints to be followed for successful cultivation. His lecture was much appreciated by all present, and he was unanimously voted the heartiest thanks of the meeting. Prizes for six cut Roses were awarded, the first going to Mr. J. C. Godwin (gardener, Mr. McCulloch), Mr. A. Baker (gardener, Mr. Orchard) obtaining second. Certificates of merit were awarded to Mr. Ross, for six dishes of Pears; Mr. Gilbert Howes (gardener, Mr. White), for Dendrobium and Chrysanthemums; Mr. W. Howell Davis (gardener, Mr. Curtis), for Cattleya labiata; Lady Cave (gardener, Mr. Poole), for cut specimens of Bamboos; and to Colonel Goss (gardener, Mr. Shaddick), for a dish of open air Tomatoes and a well-grown Croton.

#### PORTSMOUTH CHRYSANTHEMUM SHOW.

The annual autumn exhibition was held, on the 29th ult., in the spacious Town Hall. The backward season had its effect upon the blooms, many being but partly expanded, and the entries under such circumstances were naturally fewer in number. Cut blooms demand first notice. In the Japanese section the exhibits were more advanced. For forty-eight blooms, in not less than twenty-four varieties, Mr. C. Penford, gardener to Sir F. Fitzwygram, Bart., Leigh Park, Havant, won the leading award with medium-sized examples of popular varieties, of which the following were noteworthy:—Duchess of Sutherland, C. Penford, L. Smith, W. Reid, General Buller, Le Grand Dragon, W. R. Church, Florence Molyneux, George Penford, and Mr. Papworth; second, Mr. J. Azate, Brockhampton Nurseries. Mr. J. Love, Park Road, Cowes, won the premier place for twenty-four blooms, in not less than twelve varieties, with a capital set of clean, high quality blooms; second, Mr. W. G. Adams, 89, Clarendon Road, Southsea. Mr. J. Tosh Robb, Woolston, had the best of three exhibits in the class for twelve blooms; second, Mr. C. E. Creighton, Stanswood, Cowes. Incurved varieties were best staged by Mr. Agate and Mr. W. G. Adams, the former winning for thirty-six and the latter for twenty-four. Edith Hughes, D. B. Craze, Miss Annie Hills, C. H. Curtis, and Baron Hirsch were the best blooms. Bouquets of Chrysanthemums made quite a pleasing change, so lightly were the flowers arranged. With a pleasing combination of yellow and suitable foliage, Miss Peel secured the first prize; second, Mr. Sackett. Table decorations, confined to ladies, were quite an important part of the show, so tastefully were they done. Mrs. T. Jeffries, Nursling, Southampton, was first prize-taker; Mr. W. H. Berry a good second. For a group of Chrysanthemums in pots and foliage plants, Mr. R. Burridge, North End, Portsmouth, was first. Fruit and vegetables were numerous and good.

#### HEREFORD FRUIT AND CHRYSANTHEMUM SHOW.

THIS, the eleventh annual show, took place on the 5th and 6th inst., in the Shire Hall, Hereford, when Apples and Pears were shown in surprisingly good condition considering the season we have experienced. The classes devoted to the Chrysanthemum and other plants were rather limited in number, but they were generally well filled. A pleasing feature was this year introduced for the first time at Hereford, viz., that of arranging decorative plants amongst the fruit in a class devoted to fifty dishes of Apples.

In this class three exhibitors staged a fine lot of fruit, the King's Acre Nurseries, Ltd., Hereford, being placed first with excellent highly coloured dishes; Messrs. Pevtrell Bros., Tillington, Hereford, who came second, also staged very good fruit; Mr. Grindrod, gardener to M. Clive, Esq., Whitfield, Hereford, was a good third, and staged some particularly large dishes of culinary varieties.

Only one exhibitor appeared in a class for thirty dishes of Apples, viz., Mr. R. M. Whiting, Credenhill, Hereford, and he was deservedly awarded the first prize.

Pears were possibly better shown than Apples, Mr. Spencer, gardener to H. C. Moffatt, Esq., Goodrich Court, Ross, being particularly strong in a class for twenty-four dishes, distinct. The second prize was awarded to Mr. Humphries, gardener to the Earl of Chesterfield, Holm Lucy, Hereford, who brought very good fruit. There were also three good exhibits in a class for twelve dishes, Mr. J. C. Jones, gardener to H. G. Lutwyche, Esq., Kynaston, securing first honours with excellent fruits. The second prize was won by Mrs. Blashill, Bridge Sollars, Hereford, Mr. Grindrod, gardener to M. Clive, Esq., Whitfield, being a close third.

#### OPEN ONLY TO AMATEURS.

For twenty-four dishes of Apples, twelve dessert and twelve culinary, Mr. W. Jones, gardener to C. H. Hazlehurst, Esq., Morton Court, Hereford, took the lead; Mr. Wootton, Byford, Hereford, was second.

A class devoted to twelve culinary varieties brought Mr. Nunn, gardener to E. Woodhouse, Esq., Burghill Court, to the front. He staged fruits in very good condition. Mr. W. Jones was second, and Mr. Wootton third.

Eight dessert varieties made an excellent class, Mr. Spencer being the leading exhibitor with a grand set; Mr. Wootton, who was second, staged a very fine dish of Court Pendu Plat amongst others; and Mr. Davies, gardener to W. C. King King, Esq., Bodenham Manor, came third.

Eight exhibitors staged in a class for eight dishes of Pears, first honours being secured by Mr. Currie, gardener to the Rev. G. H. Devenport, Foxley Vicarage, who had excellent fruits; Mr. Luston, gardener to the Rev. H. Brierley, Bridston Vicarage, being a creditable second; and Mr. Fox, gardener to Sir J. Cotterell, Bart., a close third.

Much interest was taken in the packing classes, and Mr. Grindrod and Mr. Froggatt (gardener to E. Walker, Esq., Belmont) were the most successful exhibitors.

Champion Classes.—These consisted of the best dishes of various kinds of fruit in the show, Mr. Spencer securing

chief honours for dessert Apples with a grand dish of Ribston Pippin, grown upon a south wall, and also for kitchen Apples, with a highly coloured dish of Peasgood's; Mrs. Blashill, with a remarkably grand dish of Pitmaston Duchess, winning that for Pears; while Mr. Grindrod had the best bunch of Grapes in a magnificent one of Gros Colman.

#### VEGETABLES.

Mr. Wilson, Commercial Street, Hereford, offered prizes for ten varieties of distinct vegetables, which brought out six exhibitors, who staged produce of very high quality. Mr. Froggatt was first, with a grand lot of clean and well-grown specimens; Messrs. Davies (gardener to W. C. King King, Esq.) and Grindrod were very close second and third in the order named.

#### CHRYSANTHEMUMS.

Twenty-four Japanese, distinct: First, Mr. Lovelock (gardener to W. Foster, Esq., Brockhampton Court), with excellent blooms of the best varieties; the Rev. H. Brierley, who was second, staged almost equally good blooms. Mr. J. C. Jones was placed first for twelve Japanese, staging a capital stand. With twelve incurved kinds, Mr. Lovelock was placed first, having for his best blooms Mme. Ferlat, Lady Kendal, and Topaz Orientale. Classes devoted to vases of Chrysanthemums and bouquets made a pretty display and brought many fine exhibits.

#### GROUPE OF PLANTS.

These were not numerous, only one being arranged of Chrysanthemums in a space of 10 feet by 7 feet. This was exhibited by Mr. C. Whiting, White Cross Nursery, Hereford, and it was in every way a splendid exhibit. A class was also provided for ornamental foliage and flowering plants, arranged in a space of 10 feet by 7 feet. Here Mr. Fox (gardener to Sir H. S. Cotterell) was first, with a group of great merit; Mr. Whiting, who was placed second, put up a similar collection of plants.

#### TRADE EXHIBITS.

The chief of these were bouquets of distinct kinds of flowers, viz., of Carnations, Orchids, Roses, Chrysanthemums, &c., together with wreaths in variety, from Mr. Wilson, Commercial Street, Hereford. Mr. H. Langston, Warston, Pembroke, brought a fine assortment of Violets in many varieties, and Mr. C. Whiting had groups of Palms and other decorative plants. C. S. Godsall, Esq., Stroud, Gloucestershire, sent a group of well-grown plants, as did also W. Foster, Esq. Mr. Wilson also staged a large collection of exceedingly fine Onions.

#### LIVERPOOL HORTICULTURAL ASSOCIATION.

A MEETING of members of the above was held on the 1st inst. under the presidency of Mr. P. Foster, when Mr. J. Stoney, of Woolton, read a paper on "Vine Culture." Full details were given as practised by himself, and with what results has been shown at the association's shows. A discussion followed, in which Messrs. Foster, Ranson, Carling, Lambert, Benson, Ewbank, and Mercer took part. A cordial vote of thanks was tendered to the lecturer and chairman for their services.

#### WEST OF ENGLAND SOCIETY'S CHRYSANTHEMUM SHOW.

PLYMOUTH GUILDHALL was the scene of the above society's show on the 4th inst., but the hall affording a far too limited space for staging the numerous exhibits, a large tent was also erected in Guildhall Square. Never before has the show been so largely patronised by exhibitors, and the display presented to the crowds of visitors who assembled during the afternoon was an exceptionally attractive one.

#### OPEN CLASSES.

Forty-eight Japanese blooms: First, Mr. F. S. Vallis, Chippenham. The stand contained some remarkably fine blooms of the best varieties; second, Mr. G. Foster, Teignmouth; third, Mr. G. W. Drake, Cardiff.

Twenty-four Japanese blooms: First, Mr. W. M. Smith, Wiveliscombe, with excellent flowers; second, Mr. F. S. Vallis; third, Mr. B. H. Hill, Crediton.

Twelve Japanese blooms: First, Mr. W. M. Smith; second, Sir John Shelley, Crediton; third, Mr. J. R. Gulsan, Teignmouth. Six Japanese, white: First, Mr. T. Martin, Plympton, with enormous specimens of Mrs. J. Lewis, the best in the show; second, Mr. G. Foster, with Mme. Carnot; third, Mr. F. Bradshaw, Lifton, with Mme. Carnot. Six Japanese any other colour: First, Mr. F. Bradshaw, with Mrs. Mease; second, Mr. J. R. Gulsan, with Le Grand Dragon; third, Mr. G. Foster, with Mrs. Mease. Six Japanese incurved: First, Mr. J. R. Gulsan; second, Sir John Shelley; third, Mr. G. Foster. Twelve Anemones: First, Sir J. Jenkins, Mannamead; second, Mr. F. Bradshaw. Twelve vases single Chrysanthemums: First, Mr. G. Foster; second, Mr. S. H. Phillips; third, Mr. F. Bradshaw.

Floral display: First, Mr. J. R. Williams, who showed wreaths, crosses, harps, and other devices composed of Orchids, Lilies of the Valley, Arums, Lilium longiflorum, &c.; second, Messrs. Hender and Sons, with artistic shawer bouquets and flower-baskets; third, Mr. J. Arnold.

Six specimen Japanese Chrysanthemum plants: First, Mrs. Cottrill, Stoke; second, Sir J. Jenkins; third, Messrs. J. Webber and Sons.

Collection of thirty-six dishes of Apples: First, Sir John Shelley; second, Mr. E. H. Hill; third, Sir J. D. Ferguson-Davie.

#### OPEN TO DEVON AND CORNWALL ONLY.

The president's silver cup for the most effective group of foliage and flowering plants suitable for winter decoration was won by Messrs. T. R. Challice and Sons, Plympton, who staged an attractive group occupying 150 square feet, comprising twenty-three species of Bamboos, the new Asparagus myricoladus, Orchids of many species, Lilies in variety, Carnations, Lilies of the Valley, Bouvardias, Spiraea palmata, Tuberoses, with other flowering and foliage plants.

In the miscellaneous group of stove and greenhouse plants



to occupy a space of 100 square feet, the first prize was won by Messrs. J. Webber and Sons. A tall Phoenix towered aloft in the centre and was surrounded by Orchids, Poinsettias, *Lilium longidorsum*, *Bouvardias*, *Clivias*, *Eucharis*, *Lilies*, *Cyclamens*, *Salvias*, *Begonias*, *Roman Hyacinths*, and *Lilies* of the Valley tastefully arranged with foliage plants; second, Admiral Parker, Delamare, in whose stand were *Pancratiums*, *Lilium speciosum*, *Arums*, &c.; third, Mrs. Dormer; fourth, Mr. A. Groombridge.

In cut blooms, twenty-four Japanese: First, Mr. T. Martin, with an excellent stand quite good enough to have won in the open class; second, Admiral Sir A. Buller, Plympton; third, General Sir R. Pole-Carew, Anthony; fourth, Admiral Lord Charles Scott, Devonport.

Twelve Japanese: First, Mr. T. Martin, with another first-rate stand; second, Mr. J. F. Winnicot; third, Mrs. Dormer. Six Japanese: First, Mr. T. Martin; second, Admiral Sir A. Buller; third, Admiral Lord Charles Scott.

There were thirty-two classes for fruit, in which Sir John Shelley carried off the majority of the prizes, followed by Sir J. Ferguson-Davie and Mr. B. H. Hill; and seventeen classes for vegetables, in which Mr. B. H. Hill, Mr. F. Bradshaw, and Sir John Shelley were the most successful exhibitors.

Twenty classes were allotted to pot plants of various descriptions, and there were also classes only open to amateurs and to cottagers.

Few nurserymen could be allotted space, owing to the number of the competing exhibits. Amongst those present Mr. H. Hodge, St. Austell, showed a good collection of excellent blooms of tuberous Begonias, for which he was awarded a certificate of merit. Certificates were also given to Messrs. J. Tomlinson and Sons for fruit; Messrs. Bennett Brothers and A. Groombridge for collections of plants; and Mr. G. Rundle for seedling Chrysanthemums. Messrs. Isaac House and Son, Westbury-on-Trym, Bristol, exhibited well-grown Violets in many varieties, and Mr. W. J. Godfrey showed a series of new Chrysanthemums, mostly of his own raising, among which *Sensation*, *Bessie Godfrey*, *Godfrey's Pride*, *Edward VII.*, *W. R. Church*, *Mafeking Hero*, *Godfrey's Masterpiece*, *F. T. Vallis*, *Mrs. Barkley*, and *Calvat's Sun* were telling varieties. He also showed Carnations and zonal Pelargoniums, many of which were very striking.

#### CARDIFF AUTUMN SHOW.

In the Park Hall on the 5th and 6th inst., the above annual autumn exhibition was held, and was in every way a success. Cut blooms were numerous and of high quality, especially in the classes set apart for amateurs and cottagers. Trained plants, too, were of remarkable excellence, quite the best seen this season so far. Orchids were a feature, and so were the non-competitive exhibits from the various trade growers, which added much to the interest of the display. Mr. Gillett, the energetic secretary, saw to all the arrangements in hand, and was ably assisted by an efficient committee, with Mr. Julian as chairman.

Cut blooms were, perhaps, the leading feature. The principal class was that for twenty-four Japanese, distinct, for which handsome prizes were offered. Mr. W. G. Drake, Cathays Terrace, Cardiff, secured the leading award with large well-proportioned blooms of Mrs. J. Lewis, T. Carrington, Australia, Mme. Herrewege, Rev. W. Wilks, Mme. G. Brunt, Le Grand Dragon, Mme. Carnot, M. Hoste, M. Chénou de Leche, W. R. Church (very fine), Mme. L. Remy, &c. Mr. J. Howe, gardener to G. Williams, Esq., Manor House, Cardiff, was second, with Mr. C. Ritchings, gardener to the Misses Baird, St. James, West Malvern, a close third.

Incurved varieties were especially well staged, Mr. Drake winning, not too easily, from Mr. Ritchings, both displaying quality in their exhibits. Such varieties as *Globe d'Or*, C. H. Curtis, Hanwell Glory, Miss A. Hills, and Lady Isabel were seen in good character.

With twelve Japanese, four competed. Mr. H. Townsend, gardener to H. Pitt, Esq., Abergavenny, was the leading prize winner; Mr. E. Milner, gardener to Miss Talbot, Margan, second.

Local classes were a strong feature. For twenty-four Japanese, in not less than twelve varieties, much keenness in competition was apparent. Mr. E. A. Parsons, gardener to Mrs. J. D. Gunn, Newport Road, Cardiff, was the most successful with excellent blooms of Lord Ludlow, W. R. Church, M. Chénou de Leche, and M. Louis Remy; Mr. J. J. Graham, gardener to A. T. Stephens, Esq., Penarth, was a close second; Mr. H. A. Allen, Penarth, third.

Forty-two Japanese, Mr. Graham also won premier award; Mr. A. F. Hill, 10, Oakfield Street, Cardiff, was a close second, W. R. Church being uncommonly good in this stand.

The best of twelve incurved were staged by Mr. Parsons.

For six Japanese, any one variety, Mr. Graham staged Mrs. J. Lewis in excellent condition, winning easily from Mr. Parsons, who also showed this variety.

For twelve Japanese there was keen competition, Mr. A. H. Hill winning from five others with grandly developed blooms; Mr. Allen second. Cottagers classes were extremely fine.

Single-flowered varieties were grandly staged. For six bunches, distinct, three trusses of each, Dr. T. Wallace secured the coveted position with splendid flowers; Mr. Stephens second.

Mr. W. Treseder, Cardiff, was almost impregnable in the floral department, winning first prize for a wreath, a cross, bouquet, sprays, &c., with exhibits well sustaining his reputation.

Mr. Ralph Crossling, Penarth, won the first prize for a bouquet of Chrysanthemums, showing a superb arrangement of *Source d'Or*, Ferns, &c.

Plants, although not numerous, were noteworthy for their excellence, especially the trained examples of that typical incurved variety C. H. Curtis, from Mr. T. Binden, gardener to Dr. T. Wallace. As a single-flowered specimen, Mr. Binden staged Miss Rose, furnished with 1,300 fully-developed blooms, and carried off the premier award.

Mr. W. Treseder was placed first for a circular group of Chrysanthemums, nicely edged with Ferns, &c. Mr. W. Hatherdale, Roath, occupied a similar position in a smaller class, with capital plants for the purpose.

Exhibits of a non-competitive order were numerous, adding greatly to the display. Messrs. Cypher, Cheltenham, with Orchids; Mr. Basham, Bassaleg, a capital collection of fruit; Mr. W. Treseder, Cactus Dahlias; Mr. S. Treseder, Roses; Messrs. Clibran, Altrincham, fruit.

#### TORQUAY CHRYSANTHEMUM SHOW.

On the 5th inst. the Torquay Gardeners' Association held their annual autumn show, but owing to a succession of wet days on the dates of previous shows, which limited the attendance, and to the poor support given by residents to the association no funds were available for prizes. The day previous, at the West of England Society's show at Plymouth, over £200 was offered in prizes, more than five hundred names appearing on the list of subscribers, and it is certainly a slur on the fair fame of Torquay, whose hills are studded with villas surrounded by beautiful gardens, that the Gardeners' Association, which endeavours to add to the attractions of the town by organising spring and autumn flower shows, should be hampered by reason of inadequate support. Perhaps systematic canvassing might remedy the evil, but certainly some steps should be taken to induce residents to aid in establishing the annual flower shows on a sound financial basis. Despite the absence of prizes a fine display was provided in the large hall of the Bath Saloons, the supporters of the association contributing attractive groups of Chrysanthemums, stove and greenhouse plants, as well as stands of cut blooms fully up to exhibition form. With the exception of four special prizes for a vase of six Chrysanthemums, for six single Primulas, and two for vegetables, all the exhibits were honorary, and it redounded greatly to the credit of all concerned that the show was in no way inferior to those of former years.

Nurserymen added much to the brightness of the scene by their stands of flowers and fruit. Messrs. Curtis, Sanford and Co., Devon Rosary, Torquay, showed over 200 Roses cut from the open, remarkably fine for November, as well as large-flowered Chrysanthemums, *Bouvardias*, *Begonias*, retarded *Lilies* of the Valley, *Spiræas*, *Lilium longiflorum*, *Palms*, &c. From their fruit farm at Cockington came a fine collection of Apples, Cucumbers, Tomatoes, Strawberries from the open ground, flowering *Laburnum*, and Violets in variety.

Messrs. Robert Veitch and Son, Exeter, showed hardy flowering plants in great variety. Mr. W. B. Smale, Torquay, had Chrysanthemums, *Cinerarias*, *Carnation* Mrs. Lawson, *Bouvardias*, *Streptocarpus*, as well as a good selection of the best Cactus Dahlias and fine blooms of tuberous Begonias. Mr. T. J. Godfrey, Exmouth, staged a number of Chrysanthemum novelties, among which were many beautiful varieties. He also showed a collection of zonal Pelargonium and Carnation blooms. Mr. T. Heath, Kingskerswell, exhibited Violets both cut and in pots, all the leading varieties being shown. Good groups of miscellaneous plants were staged from the gardens of Mr. Bell, Mrs. Hassall, Mrs. Bundock, and Dr. Quick, in the latter stand being a white sport of Chrysanthemum *Waban*. A large and very excellent central group of Chrysanthemums was contributed by Dr. Ford Edgelow. Splendid Maiden-hair Ferns were sent from the Erith House Institution, and fine collections of fruit were furnished from the gardens of residents in Torquay and the surrounding neighbourhood. Four prettily decorated dinner-tables attracted considerable attention, and, as prize cards were conspicuous by their absence, partisans were enabled to uphold the superiority of their choice.

#### EXETER CHRYSANTHEMUM SHOW.

The above show was held in the Victoria Hall, Exeter, on the 6th inst., under the auspices of the Devon and Exeter Horticultural Society, and resulted in keen competition, especially in the cut bloom and fruit departments.

Chrysanthemums in pots in circle 10 feet diameter: First prize, Mr. W. Brock; second prize, Mrs. Savile. Chrysanthemums in circle, 8 feet diameter: First prize, Mr. M. Farrant. Chrysanthemums staged in semi-circle: First prize, Mr. C. M. Collingwood (this group was also awarded the National Chrysanthemum Society's certificate of merit); second prize, Mr. W. Brock.

Group of miscellaneous plants: First prize, Mr. W. Brock, for an artistically arranged group with tall *Cocos flexuosa* in the centre, surrounded by *Bamboos*, *Crotons*, *Asparagus*, and Maiden-hair Ferns, brightened by *Poinsettias*, *Orchids*, &c.; second prize, Mr. M. Farrant.

#### CUT BLOOMS.

Thirty-six Japanese: First prize, Mr. F. S. Vallis, the winner both at the Royal Aquarium and at Plymouth, with magnificent flowers of the leading sorts. Of his blooms Mme. Waldeck Rousseau and Kimberley in the back row, and Mrs. Vallis and Matthew Smith in the front row, were especially fine; second prize, Mr. W. Macadam Smith; third prize, Mr. H. N. Harrison.

Thirty-six Japanese, twelve distinct varieties shown in vases: First prize, Sir D. Duckworth-King; second prize, Mrs. Hammond-Spencer.

Eighteen Japanese: First prize, Sir John Shelley; second prize, Mrs. Hammond-Spencer; third prize, Mr. B. H. Hill. Six Japanese, white: First prize, Mrs. Hammond-Spencer, with Mme. Carnot; second prize, Sir John Shelley, with Mrs. J. Lewis. Six Japanese, yellow: First prize, Rev. E. Heathcote, with Kimberley; Mrs. Mease, the primrose sport of Mme. Carnot, was disqualified for not being yellow. Six Japanese, any other colour: First prize, Mr. T. Kekewich, with Lady Ridgeway.

While on the subject of cut blooms mention must be made of an excellent stand of twelve Japanese shown by Mr. W. L. Jones in the class for amateurs and cottagers. This stand was deservedly awarded the National Chrysanthemum Society's certificate of merit, as the blooms were of enormous

size and in perfect condition. Two classes were devoted to baskets of autumn foliage and berries, and one to baskets of cut Chrysanthemums, all of which were well filled with tasteful arrangements. There were over fifty classes for fruit, of which there was a splendid display. Sir John Shelley carried off the premier honours, followed by Mrs. Hearn, Mr. T. Kekewich, and Mr. B. H. Hill; while among the other winners were Sir J. Ferguson-Davie, Sir D. Duckworth-King, Lord Poltimore, and Sir J. Kennaway.

Messrs. Isaac House and Son, Westbury-on-Trym, Bristol, were awarded the society's certificate of merit for a collection of Violets, amongst which were *La France*, *Luxonne*, *Princess of Wales*, *The Czar*, and *Semperflorens*, a pale blue Violet, said to be in bloom for eight months out of the twelve, and Mrs. J. J. Astor, Marie Louise, and Lady Hume Campbell of the doubles.

Messrs. Robert Veitch and Son, Exeter, had a collection of new Cactus Dahlias, of which Mrs. E. Mawley, Lucius, Night, and Radiance were particularly noteworthy. They also staged *Parochetus communis major*, blue Primroses, *Vitis Cœngetia* (very finely coloured), *Nerines*, *Acacias*, *Lilies*, *Ceanothus*, *Primulas*, *Skimmias*, *Vernonias*, *Physalis Franchetti*, and other plants.

#### READING AND DISTRICT GARDENERS' ASSOCIATION.

ABOUT 120 members assembled at the last fortnightly meeting of the above association, when Mr. James C. House, of Westbury-on-Trym, gave a lecture on "Sweet Peas." In introducing the subject the lecturer asked the question: "What are the qualities of the Sweet Pea which give it such a high position amongst flowers?" and answered it as follows: The wide range of colour; the softness of its tints; perfume; durability; grace of form; length of flowering season; and that the seed was within the reach of all. Passing on to varieties, he recommended as the best in their various colours *Salopian* (crimson), *Lord Rosebery* (rose and carmine), *Prima Donna* (pink), *Navy Blue* (deep blue), *Countess Cadogan* (medium blue), *Dorothy Tennant* (mauve), *Miss Willmott* (salmon), *Countess of Aberdeen* (blush), *Hon. Mrs. Keayon* (yellow), *Duke of Westminster* (violet), *Black Knight* (bronze or maroon), *Lady Grisel Hamilton* (lavender), *Dorothy Eckford* (white), *Lottie Hutchins* (fancy), &c. An interesting discussion followed, in which the President, Messrs. Stanton, Powell, Neve, Hinton, &c., took part.

The exhibits were numerous and interesting. Honorary: Mr. G. Stanton, Park Place, made a splendid as well as an instructive exhibit of a collection of Apples and Pears, consisting of typical specimens, each correctly named, of fifty varieties of the former and fifty of the latter, also a basket and two pedestals, standing about 2½ feet high, of beautiful specimens of Sweet Peas, illustrating in a remarkable manner the lateness as well as the mildness of the present season. Mr. Barnes, of Bear Wood, staged three magnificent Melons (not yet named); Mr. J. Pound, of Caversham, two dishes of Apples, splendid fruits for the season; Mr. Tunbridge, Medmenham, a brace of Cucumbers; whilst for the cultural certificate Mr. J. Wicks, the Gardens, Broad Oak, staged six well-grown specimens of *Begonia Turnford* Hall, and Mr. House, of Oakfield Gardens, a seedling Chrysanthemum. The certificate was awarded to the Begonias.

The prizes won in the recent essay competition were presented to the successful competitors as follows:—Seniors: "All Phases of Pruning in connexion with Hardy Fruit Culture."—First prize, value 40s. (mathematical instruments and microscope), Mr. C. P. Cretchley, the Gardens, The Honeys, Twyford; second prize, 30s. (clock), Mr. G. Hinton, the Gardens, Walmer, Reading. Juniors: "The Best Means of Maintaining a Supply of Vegetables all the Year Round."—First prize, 30s. (six volumes of "Wright's Fruit Growers' Guide"), Mr. W. G. Wadge, the Gardens, Bear Wood; second prize, 20s. (mathematical instruments), Mr. A. Etherington, the Gardens, Park Place. Four new members were elected.

#### CAMBRIDGE AUTUMN SHOW.

THE autumn show in connexion with the Cambridgeshire Horticultural Society was held in the Corn Exchange on the 5th and 6th inst., and proved one of the most successful the society has held for many years.

#### CHRYSANTHEMUMS.

Mr. A. Matthews was first for a group of plants, having mostly Japanese Chrysanthemums, Miss A. Newman being second.

For the best Japanese blooms, Messrs. Willers and Bond were the most successful, and the same exhibitors were very often leading in the incurved section. The decorated tables were a pretty feature, the most successful exhibitors being Mrs. J. E. L. Whitehead, Dr. Sanday, and Mr. P. L. Hudson.

Mr. E. B. Forster was the fortunate winner of the prize for the best Japanese bloom, having a very fine Mrs. H. Weeks; and for the best incurved, Mr. A. J. Thornhill had a grand flower of Lady Isabel. The vase classes were a leading feature. There were some splendid blooms staged. The best incurved in vases were staged by Messrs. Linton and Briscoe, and the Japanese by Mr. W. Bond, Sir A. W. Marshall, and Mr. A. Matthews.

In the class for thirty-six blooms, Japanese, there were some grand stands staged, the flowers in this section being notable for their good form. Mr. W. Bond had the premier award, Mr. E. B. Forster being second. For the best twenty-four blooms, incurved, Messrs. A. J. Thornhill, W. A. Briscoe, and J. Linton took the prizes in the order named. In the smaller classes for members' prizes there was less competition, but good blooms were shown. Here we found several new names to those previously noted, Messrs. Foster, Bond, Stables, Linton, and Dobbs being the chief winners in these classes.

#### FRUIT.

Fruit was a leading feature and was well shown. Special mention must be made of the collection of thirty varieties of Apples and Pears. Lord Clifden was first; but



very closely followed by Mr. J. H. Ridgewell, who lost a few points in the cooking Apples; Mr. J. W. Burkett being third. In the smaller collections the fruit was remarkable for its perfect shape and beautiful colour. For twelve varieties, Messrs. Adeane, Briscoe, and Harnard were the winners. For six varieties, Messrs. Vawor, Harnard, and Burkett. For three dishes, Messrs. Vawor, Matthews, and Burkett; and in the dessert class, Messrs. Harnard, Adeane, and Viscount Clifden had splendid dishes. For single dishes there was a good competition and splendid fruits were staged.

Pears were very good; there were many classes for these fruits, and many of the exhibitors named above were again the prize winners. In the classes for flavour, Mr. J. H. Ridgewell had the best fruits; all those who won having Doyenné du Comice. Messrs. Briscoe, Burkett, and Linton led in most cases.

Grapes were well shown, and certainly deserved more space. For the best Muscat of Alexandria, Mr. C. R. W. Adeane had grandly coloured bunches; Messrs. Linton and Hudson being respectively second and third. Mr. J. Linton had the best any other white variety. In the class for the variety Alicante there was a strong fight for the premier award, Mr. Hudson being first with grand bunches; Mr. Adeane second; and Mr. Matthews third.

Vegetables were equal in quality and quantity to the other exhibits and well staged, there being an absence of coarseness often seen at this season. For the best twelve kinds, Mr. A. J. Thornhill was first; Mr. Ridgewell being second. For twelve varieties of Potatoes, some splendid examples were shown; Mr. Ridgewell being a good first. In the class for six dishes, the same exhibitor was first; Messrs. Ginn, Hutchinson, and Matthews being the other prize takers.

The secretaries and committee deserve every praise for the general arrangements made at this grand autumn show.

#### NEWPORT CHRYSANTHEMUM SHOW.

No better site in which to hold an autumn exhibition could be wished for than the Gymnasium in this town. Ample space and light are assured, with a pleasant promenade space for the visitors. The show in question, which was held on the 6th inst., was, perhaps, a little smaller in extent, but this defect was made up in point of quality. Groups of Chrysanthemums were not numerous, but creditable. Mr. J. Pegler, gardener to H. J. Davis, Esq., won premier position with suitable plants, tastefully interspersed with foliage plants; Dr. Thomas was second, but little behind the former. For a smaller group, Mr. R. Long, gardener to W. J. Dawson, Esq., won somewhat easily. With a capital lot of Orchids, Ferns, Palms, and Crotons, Mr. Phillips won the premier position for a group of miscellaneous plants arranged for effect.

Cut blooms were numerous. The leading class was that for twenty-four Japanese, which carried with the challenge cup offered a substantial cash prize also. Mr. J. Duff, gardener to Mrs. Williams, Newport, was an easy first with heavy blooms. The following were of the best: Australia, Mme. Carot, Simplicity, Matthew Smith, Phœbus, Mrs. J. L. McKellar, Calvat's 99, and M. Louis Remy (grand); Mr. J. J. Graham, gardener to A. T. Stephens, Esq., Newport, a good second; Mr. Drake, Cardiff, third.

For twelve Japanese, Mr. J. Duff won first place with examples similar to those in his leading stand of twenty-four; second, Mr. G. Richardson, gardener to Sir H. M. Jackson.

Orchids, Primulas, plants for table decoration, and fruit were all freely contributed and neatly staged, adding much to the beauty of the show.

#### SOUTHAMPTON SHOW.

This annual exhibition, held in the Victoria Hall on the 4th and 5th inst., proved a great success, exhibits being close in point of quality and competition keen.

##### OPEN CLASSES.

Plants: For the best collection of Chrysanthemums arranged in a limited space, Mr. C. Hosey, gardener to J. C. D'Este, Esq., Elmfield, Southampton, secured first prize with dwarf plants carrying very good blooms; Mr. B. Henley, Masonic Hall, Woolston, and Mr. T. Hall, gardener to Sir S. Montagu, South Stoneham House, were second and third respectively.

Cut blooms: The principal class was that for Japanese, twelve varieties, three blooms of each, staged in vases, for which the Victoria Challenge Trophy was offered, accompanied by a money prize. There were three competitors, the winning exhibit being shown by Mr. G. Hall, gardener to Lady Louisa Ashburton, Melchet Court, Romsey, his blooms being very creditable; Mr. L. Dawes, gardener to Mrs. Ogilvie, Hambledon, was a close second; third, Mr. C. Hosey.

For twenty-four Japanese, four competed, the best being shown by His Majesty the King, Osborne (gardener, Mr. T. Nobbs); Mr. G. Hall was second; Mr. J. Wasley, gardener to J. B. Taylor, Esq., Sherfield Manor, Basingstoke, third.

In the class for eighteen Japanese there were five entries, the prizes again going to Messrs. Nobbs, Hall, and Wasley. Mr. Dawes was first for twelve Japanese, with good examples; Mr. Nobbs was second.

Entries for incurved were scarce. For twelve, Mr. G. Hall was an easy first with medium-sized blooms of Louisa Giles, Mrs. R. C. Kingston, C. H. Curtis, Baron Hirsch, &c.; second, Mr. J. Love, Park Road, Cowes, Isle of Wight, whose Malene won premier award for an incurved bloom.

Gentlemen's gardeners and amateurs in the classes allotted to them made a good display. For eighteen blooms of any kind, not more than two of any one variety, there were four competing, the premier stand being shown by Mr. E. Brown; Mr. M. Hodgson, Morton House, Kingsworthy, second. For twelve blooms, seven competed, Mr. Brown again leading, with similar varieties to the previous stand; Mr. Tragett, Abridge Danes, Romsey, second.

In the class for four varieties Japanese, three blooms of each, staged in vases, Mr. Brown was again first with really

fine examples; Mr. H. E. Sugden, Ingersley, Chilworth, second. The premier Japanese bloom was Miss Alice Eyrton, belonging to Mr. J. Dawes.

Miscellaneous plants arranged for effect were not numerous. Mr. E. Wills, The Nurseries, Winchester Road, Southampton, was first; Mr. T. Hall second.

For the most tastefully arranged vase of Chrysanthemums, foliage, grasses, &c., open to ladies only, Miss Minnie Snellgrove, 10, Oxford Road, Southampton, was first with a charmingly arranged exhibit; Mrs. Jeffrey, Nursling, Southampton, second. For a basket of autumn leaves and berries, five competed, the whole effect being good and arrangement excellent; Miss Wadmore, Brook House, Basingstoke, was first, and Mrs. Jeffreys second.

Fruit was plentifully staged, but space forbids mention of the individual classes.

Mr. C. S. Fudge had, as usual, all the arrangements in perfect order; he has had almost a lifelong experience of horticultural exhibition management as secretary.

#### ALTRINCHAM AND DISTRICT CHRYSANTHEMUM SHOW.

The exhibition held on Friday and Saturday week in the spacious Drill Hall, Hale, was marked by many notable features, the first being the groups arranged for effect, and for which five competed. The first prize and silver cup given by the President (Sir W. Pollitt, J.P.), were won by Mr. T. Johnson, gardener to T. H. Edward, Esq., Eastcliff, Bowdon, the plants being dwarf, fresh and good; a capital second came from Mr. Leah, gardener to S. Thompson, Esq., Brentwood, Altrincham; third, Mr. J. Corbett, gardener to J. Thompson, Esq., Beech Bank, Bowdon. In another section for groups, Mr. J. Royle, Britannia Grove, Sale, was first. Decorative and miscellaneous plants were excellent, but the numerous classes will not permit of names being given. There was a handsome silver cup presented for twelve incurved and twelve Japanese; Mr. J. Holbrook won with fine blooms. Incurved flowers were very weak, as indeed they were throughout the show.

In the open competition for the same number, Mr. J. Mottram, gardener to Mrs. Bodin, Beech Mount, Bowdon, was the victor, with excellent flowers; second, Mr. A. H. Hall, gardener to J. C. Waterhouse, Esq., Collar House, Prestbury. Some specially good Japanese were in the twelve class won by Mr. Ashworth, gardener to T. Thompson, Esq., Mr. Calderbank, gardener to W. J. Crossly, Esq., Altrincham, had several more than promising seedling Japanese.

Floral decorations were superb, whilst fruit, more especially Grapes, was largely represented. Mr. J. Robson, Bowdon, had a rich assortment of miscellaneous plants, and Mr. W. Wells, Earlswood, Surrey, many new Chrysanthemums, being honoured with certificates for the grand coloured S. T. Wright, and a bronzy red incurved of fine petal named Miss R. Hunt. The best Japanese bloom was Mrs. Barclay, from Mr. J. Holbrook; and best incurved, Mme. Ferlat, from Mr. Mottram.

#### TOTTENHAM AND EDMONTON CHRYSANTHEMUM SHOW.

The fourteenth annual display of this society was held in the Town Hall, Edmonton, on the 6th and 7th inst., and, considering the acknowledged backwardness of the season, the promoters of the exhibition have every reason to be satisfied with their efforts. One of the leading classes was that for a group of Chrysanthemums arranged in a semi-circular space. A handsome lot of plants, bearing large and clean blooms of good colour and nicely disposed, secured premier honours for Mr. W. J. Reed, gardener to Rev. Denton Jones, The Vicarage, Tottenham. Second prize was awarded to Mr. W. Welfare, gardener to Mr. J. Pedley, J.P., Trafalgar House, with a somewhat formal arrangement, although the flowers were good, and third prize went to Mr. F. Garnham, Strand Union School, for a pretty lot of flowers which wanted more colour. Specimen plants are always well shown at this exhibition, and on the present occasion, for four trained plants, Mr. G. W. Hendon, gardener to Mr. J. Cloudsley, J.P., White Hart Lane, Tottenham, was a good first; Mr. Welfare was placed second.

Twenty-four Japanese blooms, in not less than eighteen varieties, formed the principal contest in the cut bloom classes. In this instance Mr. Welfare triumphed, winning with good flowers; Mr. Hendon was second with a smaller set altogether.

Twelve blooms Japanese, distinct, saw Mr. Welfare again to the fore with a capital lot of blooms of good colour. Mr. Hendon was again second with smaller though pretty blooms, succeeded by Mr. A. H. King, gardener to Mr. J. Bailey. A class for twelve blooms large-flowered Anemones, in which Japanese Anemones were allowed, Mr. F. J. Golding, Lee Villa, Lansdowne Road, Tottenham, was placed first for a rather poor lot of flowers; Mr. G. H. Thurlay, 13, Argyle Road, Tottenham, following the first prize lot closely. A similar class for six blooms, distinct, was infinitely superior in point of quality to the larger class. In this instance Mr. J. G. Cairnes, 92, Birkbeck Road, Tottenham, was awarded first prize for a nice lot of well-developed flowers with good discs. A good second was found in Mr. Hendon, with a very bright lot of flowers, and Mr. Golding was third.

The quality of the amateur exhibits was distinctly good, vying with the professional exhibits for popular favour. For twelve blooms Japanese, distinct, a superb lot of flowers won first prize for Mr. F. L. Gray, Fernleigh, Lower Edmonton. His best flowers included Mrs. George Mileham (best bloom in the show). A smaller set secured second prize for Mr. M. England, 167, Silver Street, Edmonton, followed by Mr. Cairnes, third. For six blooms Japanese, distinct, the popular secretary, Mr. G. H. Thurlay, was found in the coveted position. His blooms were neat, clean, and even; second prize was won by Mr. H. Tyrrell, 21, Nassau Road, South Tottenham, with larger though somewhat rough flowers, and third prize went to Mr. R. Norman, 15, Northumberland Grove, Tottenham.

M. Louis Remy was the premier bloom in the open classes,

and was exhibited by Mr. Welfare. In the amateur division a magnificent flower of Mrs. George Mileham was the premier bloom, and was shown by Mr. Gray.

Fruits and vegetables were staged, the latter freely and in excellent condition, and these, together with Chrysanthemums in vases, made an interesting and praiseworthy exhibition.

#### NATIONAL CHRYSANTHEMUM SOCIETY.

THE Floral Committee of this society met together at the Royal Aquarium, Westminster, on Monday afternoon last, Mr. D. B. Craze (in the chair) and a very fair attendance of members present.

Novelties were not by any means numerous, and of these several failed to reach the desired standard of quality. Those to receive recognition were

Mrs. A. R. Knight.—A large, deeply-built, reflexed Japanese bloom, with fairly long petals of medium width. The lower petals are broader, curling, and slightly incurving at the ends. The lower part of the flower is reddish crimson on the inside of the florets, with a bronzy reverse, but the upper portion of the bloom is a glorious rich golden-yellow. First-class certificate to Mr. N. Molyneux, Rookesbury Park, Hants.

Mrs. J. Seward.—This is a very large, massively-built incurved bloom of neat and even form, having petals of medium width neatly incurving, and building up a bloom of globular form; colour pale yellow, tinted buff. First-class certificate to Mr. W. Seward, Hanwell. The committee also wished to see again

Madge Creagh.—A medium-sized incurved bloom, of good form, with neat and well-defined incurved petals, building a pretty and even flower; colour buff-yellow, tinted rosy bronze on the lower portion of the bloom.

Mildred Lync.—A valuable sport from incurved Mr. H. J. Jones, and equal in size and substance to the parent bloom. The blooms have a yellowish centre, and are rosy bronze on the lower portion of the flowers; inside colouring red. This should prove an acquisition to the incurved section.

#### THE CORN EXCHANGE CHRYSANTHEMUM SOCIETY.

THIS society, which is composed of members of the Corn Exchange and their friends in the City who take an interest in the Chrysanthemum, combines charitable work with a very attractive though small exhibition that filled one of the large rooms of the restaurant by the side of the Corn Exchange on the 10th inst. The flowers are staged by 11 a.m., they are then judged, the public are admitted by making a small payment, and at 3.30 all the exhibits are sold for the benefit of the Corn Exchange Benevolent Society.

The four first classes out of the nine comprising the schedule of prizes are confined simply to members of the Corn Exchange, and two prizes were awarded in each. The principal prize-winner in these was Mr. William R. Clarke, Loughton (gardener, Mr. F. King). In Class 1, twelve distinct Japanese were shown; Mr. Clarke taking the first prize with some very good flowers; Mr. F. W. Smith, Weybridge (gardener, Mr. T. Buckmaster), was a good second.

In the class for twelve blooms, any varieties, Mr. Clarke was again placed first. He staged four fine incurved varieties, namely, Mme. Ferlat, Lady Isabel, Chrysanthemiste Brunant, and Mme. E. Roger, the green tint of which proved of great interest, and some fine Japanese. With six blooms of Japanese, Mr. Clarke again came to the fore; Mr. F. W. Smith was again second. For six blooms of any variety, Mr. Clarke secured his fourth win with very fine blooms of incurved varieties; Mr. Smith came in second once more with six Japanese.

The non-members of the Corn Exchange competing were more numerous than the members. There were seven stands of twelve blooms. Mr. R. Kenyon, Monkham, Woodford, was placed first with excellent Japanese blooms; Mr. F. S. Holland (gardener, Mr. T. Stevenson) was a close second.

With twelve blooms, distinct varieties, Mr. Holland was again first, having on the front of his board four finely developed incurved varieties as well as Japanese. For six blooms of Japanese, Mr. Holland gained another first prize; Mr. R. Kenyon was second. For six blooms, distinct varieties, Mr. Holland again won with six excellent incurved varieties; Mr. H. Fergusson was placed second, he had six fine Japanese.

The best six blooms shown in a vase came also from Mr. Holland, and Mr. F. W. Smith was second.

A silver bowl offered for the best twelve blooms in the four classes, open to members of the Corn Exchange, was awarded to Mr. Clarke; and a silver cup offered in the four non-members classes to Mr. Holland. Of miscellaneous exhibits Messrs. T. Tiffin and Co., Cannon Street, sent a large and very handsome bouquet composed of Liberty and other roses, Orchids, Lilies, &c. Mr. D. Grimslade, a member of the committee, sent ten pretty plants of Cattleyas, and Messrs. M. Longman and Co., florists, Mark Lane, a decorated floral car, which was greatly admired.

#### UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE usual monthly committee meeting of this society was held at the Caledonian Hotel, Adelphi Terrace, Strand, on Monday evening last. Mr. C. H. Curtis presided. Nine members were reported on the sick fund, the amount of sick pay for the month being £31 7s. Seven new members were elected, making a total of eighty-six this year up to the present time. The secretary was authorised to obtain 3,000 circulars for distribution.

**Horticultural Club.**—After the house meeting of the club on Tuesday next, at 6 p.m., Mr. Henry Stevens, of Covent Garden, will show a series of lantern slides prepared from his flower and other photographs. This promises to be an exceptionally interesting evening.



# THE GARDEN

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[NOVEMBER 22, 1902.]

## THE HORTICULTURAL HALL.

### THE PLANS.

**W**ITH eager anticipation we opened the book of plans of the Royal Horticultural Society's proposed buildings in Vincent Square.

We deeply regret that we can only view them with a sense of disappointment. It was a rare chance of doing something that should be in the first place of absolute utility and convenience, and, in the second, should have that simple dignity that would be worthy of the high place now occupied by the Society. The first need has been met, after a fashion; the second, in the plans now before us, has either been ignored or entirely missed. The result is a building entirely commonplace, absolutely wanting in all architectural feeling. The only ingenuity it displays is in giving a maximum of space to the Exhibition Hall, but it is entirely without charm, such charm as is only given by the clever planning, careful detail and fine sense of proportion that the architect who is master of his craft gives to a building, thus endowing it with the qualities of beauty and gracious beneficence while not in the slightest degree depriving it of utility. In the proposed plans what have we? The glass barrel of a railway station, masked by a second-rate railway hotel on the road front!

Possibly the conditions under which the land has been acquired will not allow the building to be brought forward, but the space seems to be much wanted, for the Council Room, and especially the Lecture Hall, are much cramped.

The drive in seems quite needless, and even if the building cannot be brought forward it would be better without the posts and railings, with the space left open. It would be quieter and more dignified, if the word dignity can possibly be applied to any portion of the proposed building.

In the Exhibition Hall we regret the iron roof and the ugliness of it all, all the more because it is so absolutely needless. Outside we regret the want of simple dignity and proportion, the curiously unhappy fenestration, the lack of every quality a building should possess to be called good. We trust that in future we shall enjoy the shows, but the building—never!

When, during the last two years the question was under consideration, whether the Society should first acquire a new garden or a home

and hall, THE GARDEN strongly advocated the greater need of a new garden. But when the Council decided in favour of the new buildings THE GARDEN could only trust that the decision was a wise one, and desire to do what it might to strengthen the hand of the Society in its new undertaking. We have therefore hoped to see such a building scheme as would do it the utmost credit, and can only express regret when we see plans that we can only think unworthy of the Royal Horticultural Society's position and purpose; wasteful of good money, whose same amount might easily have brought both additional convenience and infinitely greater honour.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

November 22.—Cumberland Chrysanthemum show.

November 24.—Meeting of the National Chrysanthemum Society's executive committee.

December 2.—National Chrysanthemum Society's exhibition at the Royal Aquarium (three days); National Chrysanthemum Society's floral committee meeting; National Amateur Gardeners' Association meets.

December 6.—Meeting of the Société Française d'Horticulture de Londres.

December 9.—Royal Horticultural Society's meeting, Drill Hall, Buckingham Gate.

December 11.—National Rose Society's annual general meeting and dinner, Hotel Windsor.

**Sir Trevor Lawrence, Bart.**, who has rendered such great services to the Royal Horticultural Society and other public bodies, has been honoured by the bestowal of a Knight Commandership of the Royal Victorian Order, on the occasion of his Majesty's birthday honours list.

**Royal Horticultural Society.**—The following dates have been fixed by the society for 1903, subject to possible alteration: January 13, January 27, February 10, February 24, March 10, March 24 (Hyacinth and Tulip show), April 7, April 21 (Primula and Auricula Society), May 19 (British Tulip show and conference), May 26, 27 and 28 (Temple flower show), June 9, 25 and 26 (Holland House show), July 7, July 25 (National Carnation show), August 4, August 18, September 1 and 2 (National Dahlia show), September 15, September 29, 30, and October 1 (Fruit and Vegetable show and conference at Chiswick), October 13, October 27, November 10, November 24, and December 15. 1904—January 12, January 26, and February 9.

**A valuable Bullace.**—The fruits of the very fine Bullace, although called a Damson (which it hardly is), when shown at the Drill Hall by Messrs. James Veitch and Sons last month, now named Langley Bullace, having been cooked and very favourably reported upon by Mr. S. T. Wright, obtained an award of merit from the fruit committee at the meeting held on the 4th inst. The variety is an immense cropper, and

there can be little doubt but that if its character as shown on the seedling tree is maintained it will in time be very widely grown for market purposes. The fruit will hang very late, and ripens early in November. Through its aid in the future there should be in commerce a big supply of these fine Bullaces after the Damsons have all been disposed of. The parents as used by Mr. Seden in effecting the cross some years since were Farleigh Prolific Damson and Orleans Plum. The fruits are of the size of the latter, and produced with all that abundance which characterises the Damson. If slowly, yet surely our hardy fruits are being increased in the most useful way.—A. D.

**Fruit trees on walls.**—On the 12th inst., Mr. W. Crump, Madresfield Court Gardens, Malvern, lectured at the Masonic Hall, Kidderminster, under the auspices of the Kidderminster and District Horticultural Society, on "The Management of Fruit Trees on Walls." There was a large attendance of members, over which the Mayor presided. Mr. Crump gave a most interesting and instructive discourse upon this subject, with which he is so well acquainted, and his remarks were much enjoyed. Mr. W. H. Wilson, of Moor Hall, has promised to give the next lecture on "Digging and Trenching" on December 10.

**The ubiquitous Ampelopsis.**—One reason of the great popularity of Ampelopsis Veitchii or Vitis inconstans seems to have been overlooked by your correspondent "F. H. C.," page 340, and that is the fact that it attaches itself to the wall without any support, whereas all the other subjects recommended for associating with it have to be held in position by nails and shreds or some other appliances that necessitate a certain amount of interference with the wall. As many people greatly object to this they plant the Ampelopsis, knowing well that no attention in the way of training or nailing will be needed. It is certainly monotonous to see it planted almost to the exclusion of everything else, but as above stated this is doubtless owing to its self-clinging qualities.—W. T.

**Plums and Cherries.**—In THE GARDEN of the 8th inst. a correspondent asks: "Is it possible to grow successfully stone fruit trees in pots in a vinery started on February 1?" Having practised such a system with invariable success for a good many years I can answer most emphatically, "Yes, it can be done." I force several hundred Cherries in pots and tubs every year, placing them in a large vinery early in January, and the earliest sorts, Bigarreau de Mai and Guigne d'Annonay, are ripe at the beginning of April. Other sorts which I find most satisfactory are: Early Rivers, Early Lyons, Governor Wood, Empress Eugénie (one of the best), Nouvelle Royale, and Bigarreau de Schreken. I ought to mention that for the purpose I employ two large vineries, and when the first by its growth begins to cause too much shade I transfer the pot trees into the next, and finally, when the fruit ripens, into a cool house. Just before the buds break into flower I fumigate with XL All Insecticide, as by doing so I find it invariably keeps them clean throughout the season. I have found by experience that it is not advisable to repot the trees every season; on the contrary, every two or three years is all that is necessary. The flowering period I prolong as much as possible by slightly shading, and I go over the flowers with a large camel's hair brush each day about noon. I am



always careful not to employ unnecessary fire-heat, and give air on every possible occasion. Of course when the season is over the trees are placed outside in a situation which is not too sunny, and the pots are simply covered with straw. When frost sets in we bring them inside again to be washed with a mixture of soft soap and sulphur just previous to starting them. Concerning Plums, I find them utterly devoid of all flavour when the slightest heat has been employed, and for that reason have long discarded their cultivation.—J. ROBERTS, *Villa Rothschild, Hohe Warte, Vienna.*

### Winter-flowering Pelargoniums.

During the Chrysanthemum season, when, what with articles, notes, and reports, the gardening papers are full of the Chrysanthemum it is pleasant to turn from the somewhat slavish adulation bestowed on this autumn flower to some others even more beautiful, but less suited for exhibition and winning prizes. Very recently I called at Mrs. T. B. Haywood's garden, Woodhatch, Reigate, and found, as is the rule there in the winter, a good-sized span house full of zonal Pelargoniums in pots, some seventy to eighty plants flowering splendidly. To me these were far more interesting and beautiful than the two large houses filled with Chrysanthemums, although a very fine collection and capitally grown. But, whilst one sees these flowers everywhere, such a glorious show of colour as these Pelargoniums gave can be seen only here and there, and, so far as I know, nowhere better or more beautiful than at Woodhatch. Mr. Salter, the excellent gardener, disclaims any suggestion that the culture of these flowers needs special skill or is difficult. Certainly such is not the case. The plants now in bloom will have tops taken from them as cuttings at the end of February; they will be put into 5-inch pots, placed in a warm house or frame, be rooted, then later put into small pots singly. By June they will need shifting into 6-inch pots and be very firmly potted, then stood outdoors in the full sunshine on a hard floor, where the chief attention needed will be in keeping the plants watered, occasionally turning them round so that the sun may shine on all sides of them, keeping the points of the shoots and all flower-buds picked out, and, if aphids appear, giving the points of the shoots now and then a dusting with tobacco powder. During August and September weak manure water may be given. From the middle of the latter month pinching should cease, as the plants will then have become bushy, and must be allowed to form flower-buds. They may be housed about the end of September, and, if they have done well, will be in fine bloom early in November. A light, warm, well-ventilated house is best. Almost any variety will do well.—A. D.

**New fruits.**—It is not often at an ordinary meeting of the fruit committee of the Royal Horticultural Society that several awards are made to new fruits. On the 4th inst., however, the committee referred to had some interesting exhibits, and though these have been briefly noticed in THE GARDEN, it is well to give a few details concerning them. Grapes are so seldom given an award that when a new variety is staged it usually creates great interest. On this occasion I certainly think the new Imperial Black, shown by Mr. Goodacre, well deserved the award given. It is evidently an excellent late Grape, of large berry, vastly superior in quality to Gros Colman, and said to set its fruits freely. Mr. Goodacre did well to show it beside other varieties, and though as regards flavour it was not quite the equal of Black Morocco, the latter is such a bad grower that it cannot be classed among the useful late varieties. Its value as a market variety will doubtless soon be seen. Another meritorious exhibit, from Mr. Basham, of Bassaleg, Newport, Mon., was the new Apple Tamplin, and well worthy it was of the award of merit. At first sight it reminded one of American Mother, and probably the last-named may be related. Tamplin is a beautiful fruit, of conical shape, striped red, medium size, and of good quality. A new Damson or Bullace was also given an award of

merit. This was shown by Messrs. Veitch, and will, I think, be a valuable addition to the late stone fruits. It is called Langley Bullace, is enormously productive, and a very fine culinary fruit. The new Bullace is the result of a cross between the Farleigh Damson and the Orleans Plum; the fruits are round, yellow, and of first-rate quality when cooked. From the same firm came even a more interesting exhibit in the shape of a new Raspberry. This at first sight appears to be a distinct Raspberry, but the foliage shows its relationship to the Blackberry. Raspberry November Abundance is the result of crossing Raspberry Superlative with an American Blackberry, and is a very beautiful fruit, large, of good quality, an enormous cropper undoubtedly, and a splendid addition to our late fruits. A new Plum was staged by Mr. Messenger, Woolverstone, Ipswich, and, though not fortunate enough to get an award, was very good. It is a round, yellow fruit, very late, and of excellent quality.—G. WYTHES.

**A new winter Rhubarb** also received an award on the 4th inst. This is a very early variety, needs no forcing, merely protection, as it starts into growth very early; indeed, so early that unless protected it is cut down by autumn frosts. It came from two sources, from Messrs. Sutton and Sons, Reading, who called it the Sutton, and from Messrs. Veitch as Christmas Rhubarb. It is also similar to Topp's Winter Rhubarb, an American introduction that has been grown at the Royal Horticultural Society's Gardens, Chiswick. This new Rhubarb, though not large, is good, of a deep colour, and will be most valuable.—G. W.

The variety of Rhubarb, Topp's Winter, shown at the Drill Hall meeting on the 4th inst., is identical with Sutton's Christmas, also shown by the Reading firm at the same time, securing a similar award. The name Christmas Rhubarb has priority, as the variety was placed before the fruit committee under that name two years ago, and a plant of it was sent to Chiswick, where it has been grown also. The variety is of Australian origin, and here changes the usual Rhubarb season by resting in the summer and making its growth in the autumn and winter. The stems are of rich colour, and the quality is very good. To suit its growth to our seasons it is needful to invert tubs over the roots in the autumn, and, if hard weather sets in, to surround them with Fern or litter. So treated good Rhubarb may be had outdoors far more easily than it can be got in hot-houses or otherwise forced. It is folly to laugh at a Rhubarb that makes its growth in the winter; far better give it needful protection, and thus secure from it many pullings which should have considerable market value.—A. D.

**Growing Chrysanthemums for beauty of individual flowers.**—Soon it will be time, I believe, to prepare for propagating for the above purpose, I therefore anxiously request the help of THE GARDEN. I find myself confused amongst the various methods advocated by different writers. Some tell you to "Stop" at a certain height; others say "Never stop at all," but "Grow on the single stem." What is one to do? I do not aim at ever growing blooms fit for exhibition, for I have neither the ability nor the conveniences to enable me to do so. Nor do I wish to grow bush plants with many flowers or sprays; I aim at growing by the correct method for the beauty of individual flowers only (though inferior as regards size to show blooms), without regard to the shape of the plant. My houses are low in structure, so that I could not bloom plants exceeding 4½ feet high. Plants with one, two, or three stems with one good bloom at the end of the stem is what I aim at. Two of such plants I presume I could pot for flowering in one 9-inch or 10-inch pot. A list of twenty-four Japanese in whites, creams, and yellows, to flower from October to the end of December, I should also be grateful for.—JAP., *Eastbourne.*

**Honeysuckles.**—From Panton Hall, Wragby, Lincolnshire, Lady Mary Turner writes: "I read the account of the Honeysuckles in the

issue of the 15th inst., where *L. sempervirens* is mentioned as almost an exotic, and Cheshire mentioned as a point far north where it will grow. It may be of interest to state that there is a very fine specimen growing at Scotch Lodge, Edradour, about one mile above Pitlochry, on a southern aspect. It flowered particularly well this year in spite of the severe winter and spring. It seems to flower well all through August and September. Visitors generally seem struck with it, as the leaves are such a bright and beautiful green and the flowers catch the eye with their bright red colour and yellow stamens. I feel sure it gets no winter protection."

**Loss at the York Gala.**—Under the presidency of Alderman Sir C. Milward, a meeting of the council of the Grand Yorkshire Gala was held at Harker's Hotel recently. The balance-sheet showed that there was a loss on last June's gala of £634 8s. 4d., due to the inclement weather which prevailed at the time. This is the greatest loss which the society has ever sustained. The next business was the appointment of a secretary in succession to Mr. C. W. Simmons, who retired on the ground of pressure of other business, and Mr. Fred Arey, of 3, New Street, was elected to that position. In recognition of the services of Mr. Simmons during the fourteen years he was secretary, the council elected him a life member. Votes of thanks were accorded the ex-Lord Mayor, president for the past year, to Sir C. A. Milward, chairman of committee; Alderman Border, vice-chairman; Alderman Sir J. S. Rymer, treasurer; to Messrs. Harper (N.E.R.); and Messrs. Backhouse, Webb, and Sutton, for donations. It may be stated that notwithstanding the loss of the last gala the society have still a substantial balance in hand. With regard to next year's fixture, a committee was appointed to arrange dates.

### Gardeners' Library at Edmonton.

In connexion with the Middlesex County Council School of Gardening, a garden library has been established at Pymmes Park, Edmonton. It already contains a good selection of the best books on gardening and botany, and is open for the benefit of gardeners on Tuesday and Thursday evenings, from 7.30 to 9.30, upon application to Mr. J. Weathers, County Instructor in Horticulture, Pymmes Park, Edmonton.

**Mr. Lewis Castle**, manager of the Duke of Bedford's experimental fruit farm, Woburn, has been awarded the prize offered last spring by the Worshipful Company of Fruiterers for the best essay on "Gathering, Preparing, and Marketing Plants and Vegetables, from the point of view of the Small Holder." The essay by Mr. Castle, who is to be congratulated upon his success, was, we believe, adjudged the best of eight considered by the judges.

**Canadian Fruit in London.**—In the window of the offices of the Canadian Pacific Railway, King William Street, are now being exhibited some very interesting specimens of fruit and vegetables from the fertile valley of the Thompson River, Kamloops, B.C., on the main line of the Canadian Pacific Railway. This valley is owned by the Canadian Real Properties, Limited, whose head offices are in London, and is being rapidly transformed from a barren waste into fruit farms, a striking testimony to the great fertility of the soil in this neighbourhood. This land has been lying idle for a number of years, but is now being rapidly reclaimed and cultivated.

**Keeping late Grapes.**—Late Grapes will require much care after the most unusual summer we have experienced. More particularly will this be so where the viney has to be used as a greenhouse as well. From what I have seen of late Grapes there is every possibility of their keeping badly, for the present season's wood is not well ripened and foliage is poor. While attention must be given to the individual bunches, berries being carefully taken out as they decay, there should also be close attention to the firing and ventilation. The foliage should be prevented from touching the glass. Cut away sub-laterals and remove detached leaves, for they hold much damp.—STEPHEN CASTLE.



**Lilium elegans.**—This Lily is commonly known as *L. thunbergianum*, and is one of the best of the early-flowering species. In the open garden *L. elegans* must have a sunny and well-drained spot, such, for instance, as on the edge of a large bank of *Rhododendrons* or in a bed of American shrubs. In such a place, with the welcome companionship of the fibrous roots of other plants, this Lily is quite at home. A coloured plate of *L. thunbergianum* Orange Queen was given in THE GARDEN for July 7, 1900.

## PALMS AND THEIR CULTURE.

THE grace, beauty, stately grandeur, and valuable economic properties of many members of the various genera of the Natural Order *Palmeæ*, render these *Monocotyledons* unique in the plant world. As cultivated in our conservatories and Palm houses at home, but little idea can be had of the magnificent proportions to which they attain under more natural conditions. Although not having had the opportunity of seeing these noble plants in their native habitats, the splendid specimens noticeable in the Riviera have in a measure familiarised the writer—through a lengthened sojourn in that delightful part of France—with their unequalled value for the beautifying and adorning of the garden. There are, however, in this country a few glass structures spacious enough to admit of many tropical Palms attaining to a great size; such are the enormous warm conservatory at Chatsworth—the seat of the Duke of Devonshire—and the more familiar Palm house at Kew, in both of which Palms thrive remarkably well under the artificial tropical conditions there maintained. The number of species contained in the Palm family provides a great many different forms, ranging from specimens 100 feet high or more down to miniature plants whose highest leaves originate within a short distance of the ground. The leaves of members of the different genera also vary very much in size, as well as in form, and this variety of character renders them especially useful as decorative plants.

Not only for the adornment of our hot-houses, greenhouses, and dwelling rooms are Palms most useful, but by their presence the appearance of the sub-tropical garden during summer time is much enhanced, and one at least—*Trachycarpus excelsus* (syn. *Chamærops excelsa*)—is sufficiently hardy to live out of doors altogether, and also thrive under the very trying conditions experienced in the course of a year in our changeable climate.

Neither is a tropical heat necessary to produce specimens of remarkable size and vigour, as a visit to the Temperate house at Kew will soon convince one. There may be seen in great luxuriance *Archontophoenix cunninghamiana* (syn. *Seaforthia elegans*), *Livistona australis*, *Trachycarpus excelsus*, and many others.

The economic properties of Palms are most important; many articles in daily use among civilised people are obtained from them, and natives of the countries where these plants are indigenous depend largely upon their products for a supply of food and many other necessities of life. To indicate the economic value and importance of Palms it will suffice to enumerate a few examples. The *N. O. Palmeæ* ranks next to that of *Graminææ*, considered with regard to its economic properties.

The Sago of Commerce is obtained chiefly from *Metroxylon Sagu*, cultivated largely in and probably a native of Borneo, Sumatra, and the Moluccas. It is estimated that 4,000 tons of Sago are imported by this country annually. The fruit of *Cocos nucifera* (the Coconut Palm) is useful and valuable in several ways. The fibrous outer coating of the fruit, after being crushed and cleaned, is used for making brushes, and the coarser fibre provides material from which mats are made. An oil expressed from the kernels is employed in the manufacture of candles. The well-known Coconut fibre—so useful for horticultural purposes—consists of the broken particles which fall during

the process of cleaning the outer covering of the fruit. In the fruits of *Elæis guineensis* (the Oil Palm) we have the chief source of the Palm Oil of commerce. The former are boiled in water, and the resulting oil on the surface is skimmed off. We import Palm Oil for use in the manufacture of soap and candles. That indispensable article in the garden—*raffia*—is furnished by a Palm from Madagascar, *Raphia Ruffia*. It is from the cuticle of the leaves that it is obtained; by the natives *raffia* is valued for making mats and articles of dress. The leaves when dry are used as books and for making various useful and ornamental articles. The Date Palm (*Phoenix dactylifera*), of which there are numerous varieties, produces fruits and leaves both of economic value. Baskets are made from the latter, and the petioles are sometimes used in this country as walking sticks.

The culture of Palms presents no special difficulties if ordinary care and attention are bestowed upon their management. Most of them require the heat of a stove-house properly to develop, while others from more temperate regions thrive best in a greenhouse. Only one species, *Chamærops humilis*, is indigenous to South Europe. A few important conditions are necessary to the suc-



LILIUM ELEGANS.

cessful cultivation of Palms. It is most unwise to allow the soil in which they are growing to become dry during winter or the foliage will soon show signs of ill-health, and the beauty of the plant is then gone. Ample drainage and not too much root run are also important items. It is surprising how long a Palm will live and to what size it will attain when confined to a comparatively small pot or tub and left undisturbed, except for an occasional top-dressing. Such specimens are most necessary in those establishments where plant decorations are extensively carried out. A subdued light is rather beneficial than otherwise to their well being, as may be gathered from the fact that when grown in well shaded glass houses the leaves are of a much more pleasing dark green than if exposed to sunlight. Palms may be used over and over again for house decoration, and if carefully watered and cleaned their foliage will suffer to no appreciable extent. As a dry arid atmosphere is most hurtful to the foliage of these noble plants it becomes necessary to make provision for the maintenance of a proper amount of moisture in the air.

The propagation of Palms is chiefly carried on in tens of thousands by nurserymen, and it is as a rule more satisfactory to purchase small plants than to grow on the seedlings one's self. In a certain establishment, where Palms are raised from seed in large quantities, the following is the method adopted: Seeds are sown thickly in small shallow boxes, and the latter placed in a warm house. The period that elapses before germination takes place varies considerably, and depends chiefly upon the condition of the seeds when imported. Some will germinate in from one to two months, and others need a much longer time. A compost containing plenty of silver sand should be used for the seeds, and the drainage also must be ample and efficient, for, as the seeds sometimes remain dormant for a considerable time, if the above were not provided the soil would probably become sour. So soon as the seedlings are well rooted, instead of transferring them to larger pots they are planted out in a bed (having a slate base and containing about 6 inches of loam) with hot-water pipes immediately underneath. Here the seedling Palms are allowed to remain until 12 inches or 18 inches high, when they are lifted and potted into small pots for sale. If this latter work is carefully performed, and the plantlets are placed in a warm moist house for a short time until well established in their new quarters, the foliage will not appreciably suffer.

A. P. H.

## ROUND ABOUT A GARDEN.

### THE USE OF CLIMBERS.

WHAT English grounds and gardens lack most are climbing plants. We use creepers enough on our walls, it is true; and since bare walls are not beautiful, this is good. But often one sees among the wall creepers wretched plants that have to be nailed up at every 6 inches lest they should fall down, and often Roses that have been so trained and tortured from an old stem, that below they present to your view a lot of bare brown branches that wriggle all over the wall like centipedes, while you almost need a fire escape to reach any blossoms. Grow the same Rose as it should be grown, in a natural way upon a living tree, and the bare brown stems will always be out of sight, while the flowering branches will hang down in fringed festoons of loveliness which almost sweep the ground. I have seen the *Maréchal Niel* grown thus throwing out year by year new flowering branches 20 feet long, from which you might have gathered a barrowload of Roses and not have missed them from the tree. But that was not in England.

### ENGLISH METHODS.

The English gardener seldom realises that climbing plants are intended to climb. Give him any plant with erect, self-supporting stem and he will know what to do with it; but give him a climber and he looks for a bare unclimbable wall to stick it against. Perhaps he will tie it to a straight stake or train it over a metal framework which gets heated by the sun and scorches every branch that touches it, or over a wooden trellis which becomes the home of thousands of earwigs that come out by night and eat the unlucky plant's tenderest leaves and flowers. When the climbers are allowed to ramble over a well-made pergola you see them to happier effect; but pergolas are not common in English gardens, and to make them well costs money, while, unless they skirt the margin of a garden, they obstruct the view.

### PERGOLAS OUT OF PLACE.

And the worst fault of a pergola, unless it is constructed and tended with that infinity of art which exactly mimics Nature, is its obvious artificiality. In ninety-nine cases out of a



hundred the pergola gives a "tea garden" aspect to what might be fine grounds. You suspect a green summer house somewhere and a white-napkin'd waiter round the corner. In hotter countries, whence we have borrowed the pattern, the shady pergola is a luxury, almost a necessity; but we in England hardly realise the value to others of a shaded garden alley where they can plant their feet upon the smooth bare ground without fear of reptiles and loiter without risk of sunstroke.

#### ARTIFICIAL STRUCTURES.

In still hotter countries, where snakes abound to excess, and coolness can only be found in the open after sunset, a bare platform of masonry or concrete is raised above the ground level of the garden, and on this chairs are placed as the sun declines; but no one would think of trying to beautify an English garden with a structure like this.

Even in India, where the "chabutra" was once the focus of every "compound," the establishment of well-kept public gardens in every station, with broad drives and smooth spaces near the band-stand, where people can walk and sit in safety in the evening, has caused it to be regarded as an old-fashioned eyesore in a private garden. Although more ornamental, the pergola is open to the same objection as the chabutra, that it is an artificial structure which has no meaning or utility in a British garden.

#### How Not to Do It.

As a stand for the display of choice climbing and rambling plants which cannot be accommodated elsewhere, the pergola has its use of course in a small town garden, where, too, it may veil an unsightly brick wall or form a protective screen against the prying eyes of neighbours; but such uses stand apart from gardening proper, and a pergola has no meaning where the ground can be cultivated for beauty alone. These climbing plants should be placed where they can climb. Take a boy who is fond of climbing and spreadeagle him against a wall with strips of cloth and nails at every joint of every limb, stretch him over a wire railing, or tie him by waist and neck to a stout post—would he call that climbing? On the other hand, take a climbing plant and place it where it can get a good grip of the lower boughs of some suitable tree, and year by year you will be surprised by the new heights which it conquers and the wreathed wealth of blossom that it flings in season like a bride's veil over the tree which it is climbing.

#### THE CLIMBER AT HOME.

For the very character of the climbing plant, which makes it such a worry to the gardener who has to train it upon a wall or any fixed framework, is specially contrived to suit a free life among the branches of a growing tree. The old stems die because they would be hidden by the growth of the tree, and new flowering stems are thrown out which catch hold of the branches nearer to the sunlight, and from these in due season come a multitude of flowering shoots, just long enough to reach the very outside of the tree, which they cover with a wealth of bloom. When the blossoms have fallen and the climber on wall or pergola looks meagre and shabby, the green tree hides all defects until its leaves fall in autumn, and then the hard, bare lines of the branches in winter will be softened and clothed in part by the twining stems, bright fruit or evergreen leaves which the climbers, if you have chosen and placed them well, will retain until the spring in such natural shelter. E. K. R.

## TREES AND SHRUBS.

### JAPANESE MAPLES.

**A**CER JAPONICUM, *A. palmatum*, and their respective varieties, all of which are characterised by finely cut leaves, and the majority by highly coloured foliage at certain seasons of the year, are commonly known by the name of Japanese Maples. The above two species, however, are not the only *Acers* that are natives of Japan, there being over a dozen others which hail from the "England of the East." There is a mistaken idea with many persons that the Japanese Maples are tender, and require shelter, &c., to keep them from being killed during the winter. This is totally different to our experience here, as they have been grown out of doors for the last twenty years and have never suffered to any great extent, though other so-called hardy shrubs have been badly injured by frost on more than one occasion.

There are several large plants of *A. palmatum* var. *sanguineum* growing here that must be, at the very least, thirty years of age, the largest measuring about 15 feet high by more than 20 feet in diameter, and these have never been injured by any winter they have passed through. Probably this district is the coldest, taking the year through, that can be found anywhere south of the Thames, and is also fully exposed to the east and north-east winds. If these plants are found hardy here then they should be the same in many other parts of the country, where the conditions are no less favourable, though I should not hesitate to recommend them for many colder situations. Plants, however, that are imported from Japan are not hardy in this country, though probably other causes besides frost may have something to do with their failure; but plants that are raised in England are as hardy as can be desired. It will occasionally be found that the points of the shoots are killed during the winter, but only when they have made a second growth in the autumn, and which has not had time to ripen before winter.

In the matter of soil to grow in these Maples are not at all particular. A light and rather poor soil is best, as this checks rank growth and helps to enhance the brilliant tints of the plants in spring and autumn. They also move well from the open ground, even if the plants have been allowed to stand for some years, and have not many fibrous roots attached.

Most of the Japanese Maples are forms of *A. palmatum*, the varieties of *A. japonicum* being *A. j. var. aureum*, with bright golden foliage; *A. j. var. crataegifolium*, which is a different plant to the species of that name, and having large deeply cut leaves, somewhat resembling those of *Crataegus tanacetifolia*, though on a larger scale; and *A. j. var. microphyllum*, which has small leaves much divided, and is of rather poor habit. The forms of *A. palmatum* are many and varied, and may be roughly classified into three divisions, viz., the *palmatum* group, where the leaves are five-lobed, resembling the type; the *septemlobum* group, the leaves of which are seven-lobed; and the *dissectum* group, where the leaves are many times cleft, the leaflets being narrow, and sometimes deeply serrated in addition. The exact number of these varieties is hard to define, and they are slowly being added to, as seedlings of many of them have been raised of late years, some of which are very handsome plants of free habit and good constitution. The distinctions between the sections cannot now be discussed, but a knowledge of the sections is useful to an understanding of the many variations found amongst these plants. The forms of the *palmatum* group are *A. p. var. crispum*, which has narrow, curled leaflets; *A. p. var. linearilobum*, the leaflets of which are long and narrow; *A. p. var. roseo-marginatum*, the leaves of which are variegated with pale yellow, edged with a rosy tint; and *A. p. var. sanguineum*, the best of all the Japanese Maples, the leaves being of a blood-red colour in spring and autumn, though turning duller in the summer. In the *septemlobum* group there is

*A. p. var. septemlobum*, which is a vigorous plant with little in the way of colour to recommend it; *A. p. var. septemlobum atropurpureum*, which has leaves of a bright purplish red colour; *A. p. var. septemlobum elegans* (laciniatum), which has narrow leaflets and a pleasing feathery appearance, the spring and autumn colouring being of a pale red; and *A. p. var. septemlobum elegans purpureum*, which resembles the preceding except in the brighter purplish red colouring of its leaves. The *dissectum* group consists of smaller-growing plants with finely-cut leaves, which give them a delicate, Fern-like appearance, though they are quite as hardy as either of the other groups. The forms are *A. p. var. dissectum*, which has leaves of a light green colour, flushed with rose in the spring; *A. p. var. dissectum ornatum*, which has rosy tinted foliage in a young state, but turning green with age; and *A. p. var. dissectum rubrum* (purpureum), with leaves of a deep red colour, rather duller than the other red-leaved forms of *A. palmatum*.

The spring and autumn colouring of these Maples renders them of great value to the planter, and in a favourable season there is a blaze of colour from some of them that is far superior to that of any other tree or shrub. The best for colour are *A. japonicum*, *A. j. var. crataegifolium*, *A. palmatum* var. *sanguineum*, and *A. p. var. septemlobum atropurpureum*. These should be planted in clumps of five or six against a background of green, and if the soil is a little poor and dry a wealth of colour will result that it would be difficult to surpass.

Bagshot, Surrey.

J. CLARK.

## CHRYSANTHEMUMS.

### CHRYSANTHEMUMS AS STANDARDS.

**O**N account of its great vigour the *Chrysanthemum* is a plant which adapts itself to every whim of the cultivator. It has been exhibited in every imaginable form, as a low bush and in specimens of every form and height up to the enormous Japanese clusters with their innumerable little flowers. Sometimes it has also been exhibited as a standard. For some years past the public has appeared to take interest in this kind of exhibition, and especially so when the blossomed heads are of clear colour and well outlined. In our opinion, in order to obtain the best effect with this form of plant—the size of the flower matters but little—the great thing is that the head should be furnished with flowers of brilliant colour. The height of the stem is only of importance so far as the use to be made of the plant is concerned. The essential thing is that the flowers should stand out well amidst a group of plants.

For the benefit of those who may be tempted to try the cultivation of this plant we will briefly indicate the work necessary to obtain fine specimens. It may easily be supposed that the time required to bring this plant to perfection is comparatively long. The height of the stem must first be attained, next the head must be formed, and finally the flowers must be perfected. These different operations take from ten to thirteen months. Cuttings should therefore be formed by taking well-grown suckers in December. These should be made to take root, and be grown either under a forcing frame upon a hot-bed or near the glass in a good, moderately warm greenhouse. They should be successively repotted in such a way that their growth is not checked, and so that the height desired for the stem may be reached in April or May at the latest. It is very important that the first branching should be formed naturally. The ramification thus resulting is much stronger than that secured by pinching off the head. There are two easy ways of obtaining this at a greater or less height—first, if you desire semi-standards choose naturally dwarf varieties; second, give the plants more or less air. Under



glass it will continue to increase in height; in the open air, on the contrary, the growth will be thicker, and the plant will branch lower. The branches thus obtained should be pinched off, leaving a length of three or four leaves. The succeeding branches should be treated in the same manner, and this should be repeated as many times as possible and as is necessary to obtain the desired head, but always on this condition—that the last pinching is done before the end of July. A good way to make possible these repeated pinchings in the rather limited time is to put the plants in old hot-beds of which the materials have well rotted. Under these conditions the plants make a strong and rapid growth, which enables them to bear the pinchings necessary in order to obtain a head of large dimensions. They should be taken up during the first fortnight in August and be well watered during the period of re-rooting. They should then be provided with good stakes to support the stem, and the head should be surrounded with a few rounds of iron wire in order that the branches

runs a passage in an admirable leader on the flower of the moment in THE GARDEN of the 8th inst. Why cannot we have Garden Chrysanthemums may not be easy to answer satisfactorily, from a certain standpoint at any rate. On the other hand, it should prove a comparatively easy matter to obtain a section of these flowers that would suit the garden exactly, and indeed far better than any others. It is possible, however, that the raisers of Chrysanthemums themselves are not so keen on the subject of Garden Chrysanthemums as they are for the "big bloom" craze. Therefore we must look to some enthusiastic hardy plant amateur to create a set of varieties that shall not merely be Garden Chrysanthemums for a time, but merit the term "garden" in its fullest and broadest sense—that is to say, the present decorative sorts that create so brave a display in the open in the early autumn months would in no sense supply the want, as at the very outset these are not hardy kinds, and hardiness must be a *sine quâ non*.

To this end, therefore, we must look to the more

flowering sort, which I named Golden Sheaf. The plant has received no protection, and though a few have perished I could have raised hundreds by division alone had I required them. Perhaps its great fault is in the lateness of flowering, for the variety in no season has been well in flower before November 18. This year it will be later. In the time of flowering, Golden Sheaf shows the influence of Admiral Symonds, while its more double flowers, I suppose, came from the yellow Desgrange side. The plant is nearly 3 feet high, is never staked, and has not been protected in any way since it first flowered as a seedling. In habit it is vigorous and intermediate between the parents, while the sheaves of showy yellow flowers that are good for nothing but the garden suggested the name Golden Sheaf. And it is among these possibly worthless kinds for other purposes that we may find sufficient material to start a set of Garden Chrysanthemums. These should be characterised by hardiness, by free growth and easily-opening flowers, and by coming with and outlasting the Michaelmas Daisies. The amateur who could see his way to creating such a set, or indeed anyone, would be doing good service. E. JENKINS.



A GROUP OF HYACINTHUS (GALTONIA) CANDICANS IN THE BORDER.

may be properly trained, and that the head may obtain a handsome well rounded form. There is nothing more to be done except to bestow the usual care, such as watering with liquid manure, removing superfluous buds, freeing from insects with sulphur, in a word, doing everything which can be done to ensure luxuriant growth. It only remains to give the names of a few varieties which adapt themselves to this training. They are the following: Baronne de Vinols, the Laforge Chrysanthemum, Etoile de Lyon, Etoile de feu, Marie Calvat, Myrto, M. E. Stradfort, Paris 1900, Phœbus, President F. Sahut, Princesse de Brancovan, Pride of Madfort, Pygmalion, Réverie, Soleil d'Octobre, Souvenir de Pont d'Avignon, Vicomte de la Tour, William Tricker, Mme. Gustave Henri, President Dutailly, Thérèse Mazier, Féerie, Braise, Banquise, Marie-Thérèse Bergman, Mme. Charles Krantz, Emile Deseine, as well as any vigorous variety whose branching is short and strong.

A. NONIN in *Le Jardin*.

#### GARDEN CHRYSANTHEMUMS.

"WHY should we not be able to speak of Garden Chrysanthemums as we do of Garden Roses?" So

diminutive flowering kinds—that is, those of the old Pompon class more particularly. The thing to aim at is a class or group sufficiently hardy and equally perennial in their character to admit, as most perennials do, of spring division and replanting when this becomes necessary. To obtain such a set should not be an insurmountable task, provided a beginning was made with those kinds most nearly related to the original varieties of Chrysanthemum indicum.

Of these there were several varieties grown nearly thirty years ago, and the principle was that of leaving the plants quite unprotected. Doubtless from among the great wealth of material now grown of ordinary kinds, some few could be found sufficiently hardy for the purpose of trial, though the better way would be to start afresh on the lines indicated.

In the large-flowered or decorative classes the well-known Source d'Or may prove a good working variety, at least as a pollen parent, while the semi-double Admiral Symonds would constitute a free grower also, and one fairly hardy. From this last-named sort, crossing it with yellow Mme. Desgrange some five or six years ago I obtained one capital hardy free-

praises of these two pretty Michaelmas Daisies—to use the old name that has pleasant associations, and is too good to let slip away. Although the rather small but very profusely borne flowers of Perry's Pink are quite pure and very lovely in colour by candlelight, and of a very passably true pink by day, I should not call Perry's Favourite, which is an Amellus, and quite different, of course, in habit to Perry's Pink, more than a pink-lilac in colour. It seems to me that it is a great pity florists and growers will persist in misapplying colour names as many do. In nearly all catalogues numbers of lilac and lavender flowers, perennial Asters included, are described as rosy pink which are not of that colour in the very least; also, flowers that are violet, as some of the Iris Kämpferi, are offered—most misleading—as crimson, and lilac ones as rosy pink. Where on earth does the pink in these come in? The word is a good expressive one, surely suggesting to everyone the colour of a La France or Caroline Testout Rose, and why should it be used to describe mauve or lilac?

However, to return to the subject of this note. It is, I suppose, much more of an achievement to get anything approaching pink in an Amellus

#### FLOWER GARDEN.

##### HYACINTHUS CANDICANS.

POPULARLY known as the Cape Hyacinth, this noble late July flowering bulbous plant should be planted in a bold group, as shown in the accompanying illustration, to get the best effect from the broad light green leaves and tall spikes. Like many strong growing bulbous plants, the Cape Hyacinth is very charming when planted amongst shrubs in woodland or border. Its tall stems are less exposed, and they rise gracefully from the undergrowth, as it were, of other plants. The photograph from which our illustration was made was kindly sent to us by a correspondent, whose address, unfortunately, we have mislaid. Perhaps the person to whom we are indebted for the opportunity of figuring this valuable garden plant will be so good as to send fuller particulars.

##### PINK ASTERS.





MESEMBRYANTHEMUM ACINACIFORME AT KINGSWEAR, S. DEVON.  
(Flowers deep rose, 4 inches across.)

variety than in the *Novæ Angliæ* section, still Ryecroft Pink is a real pink. It apparently belongs to the *N. Angliæ*, though it may be a hybrid, but I have not seen the raiser's description. The colour is pure, rich, and bright, the foliage a light, fresh-looking green, which, by the way, is also the case with Perry's Favourite. Ryecroft Pink seems to be a good grower, and my plant, though the cold spring and two removals worried it very much, is blooming well. The flowers are the size of a shilling or a little larger, and have the finely fimbriated petals characteristic of the *N. A.* section; it is 3 feet high. Ryecroft Purple, close by, is an exact match in size of flower, height, and habit, but the blooms are the exact colour of an amethyst stone. Neither is aniline nor crude in tone.

Bath.

M. L. W.

## NOTES FROM WORCESTERSHIRE.

ONE of the most charming seats in this county is Shelsley Walsh House, the residence of Montague Taylor, Esq. Situated at the foot of a well-wooded range of hills, which slope down to the river Teme, the house, which dates from the fifteenth century and was originally moated, commands an exquisite view of the surrounding country. The Teme Valley has long been noted for its magnificent scenery, and its soil, which is a rich fertile loam, is mainly devoted to the culture of fruit and Hops. Mr. Taylor's plantations of Apples and Currants occupy

many acres, and are models of good culture; but owing to a plague of rabbits bush Apples have had to be abandoned in favour of standards and half-standards. The garden at Shelsley House is sheltered by steep well-wooded hills from the north and east, and from one of these rises a small stream which flows through the grounds and feeds a pool. This pool was constructed in place of the moat which has now been done away with. Trees and shrubs luxuriate, and form pleasing pictures on the steep sloping ground. Many visitors come to see the enormous specimen of the Himalayan *Picea morinda*, said to be the finest of its kind in England. Mr. Taylor tells me that it was raised from seed sent to a previous owner of the estate. Unfortunately, this imposing tree is now past its best, although still very handsome. Visiting

### MADRESFIELD COURT GARDENS

at the end of September, I found that in spite of this inclement season Mr. Crump had some very excellent crops of hardy fruit. To mention but a few kinds, Pears Doyenné du Comice and Marguerite Marillat were superb against a wall, while Apples Newton Wonder, Royal Jubilee, Lane's Prince Albert, May Queen, and Pott's Seedling were exceptionally good. Those who have not yet given May Queen a trial should most certainly do so. It is a brightly-coloured deersert Apple introduced by Mr. Crump, below medium size, of good flavour, and keeps till April or May. On the stiff land at Madresfield it crops well, and is also doing well on the light sandy soil in my garden. Bedding out is not much in vogue at Madresfield, but I noticed some very beautiful combinations. I was particularly delighted with some large beds of the bright purple *Verbena venosa*, planted in contrast to some fine

masses of the dwarf *Rudbeckia Newmanii*. Very beautiful, too, were the recently made beds of Tea and H.T. Roses of one variety. For wealth of bloom *Mlle. Yvonne Gravier*, to which attention has previously been called in *THE GARDEN* (page 201), was quite the best. Other varieties most remarked were *Grüis* an *Teplitz* (fine for pegging down), *G. Nabonnand*, *Mme. Jules Grolez*, and *Bourbon Souvenir de Malmaison*. The new Tea Rose, *Mme. Berkeley*, was also noticed, and seemed very promising. It is a robust grower, semi-double, with large salmon-white petals, and obtained an award of merit from the Royal Horticultural Society last year. Anyone who is interested in hardy plants can always enjoy themselves at

### MESSRS. RICHARD SMITH AND CO.'S NURSERIES.

The department is under the control of Mr. W. Horsman, whose knowledge of hardy plants is very considerable. When I paid my autumn visit the borders were gay with many of the yellow-flowered Composites, Starworts, *Solidagos*, *Colchicums*, *Kniphofias*, *Montbrietias*, &c. It was quite a revelation to see *Helianthus tomentosus* (mollis) completely covered with myriads of its neat black-centred blossoms. I consider it is *facile princeps* of the Sunflowers, especially for house decoration. Then came the Asters, and one could not help admiring that beautiful species *Porteri*, as yet comparatively unknown. It is a first-rate plant of excellent habit, and not at all straggling. On the whole it bears some resemblance to *A. ericoides*, grows barely 2 feet in height, and starts to flower

early in September, covering itself with small white blossoms with yellow centres. According to the "Kew Hand List" its habitat is Colorado. Of the *Colchicums*, *speciosum* was easily the finest species in bloom at the time of my visit. Its flowers almost resemble a Tulip, are of a rich crimson-purple, and measure 7 inches or 8 inches in length. Two other smaller kinds were also very bright, *i.e.*, *arenarium*, a Hungarian species, with pale rose-purple blossoms, the other being *umbrosum*, a rich violet-purple in colour. Many other good and rare plants were in bloom, but space prevents my making mention of them here.

Worcestershire.

ARTHUR R. GOODWIN.

## NOTES ON HARDY PLANTS

### MESEMBRYANTHEMUMS.

**M**ESEMBRYANTHEMUMS are not everybody's flowers, and the fact that there are, indeed, few localities in the British Isles where they can be successfully cultivated doubtless accounts for the paucity of the notes that appear in the horticultural press on this brilliant race. Where they succeed there are few subjects that equal them for effect, while the various species prolong the blooming season for many months. In mild winters solitary blossoms may be seen on such species as *M. aurantiacum* or *M. roseum* as early as February, and belated flowers are often expanded as late as November. These dates do not, however, fall within the ordinary blooming period, which may be taken as extending from the middle of March to the end of August. A light, porous soil and the proximity of the sea appear to be indispensable to the satisfactory growth and flowering of *Mesembryanthemums*, for I have never met with a good collection inland, and in heavy soil, even within half a mile of the sea, the plants, while growing, have refused to flower. The best collection is undoubtedly that contained in the gardens of Tresco Abbey, Isles of Scilly, where 120 species are grown. Here the porous soil consists of peat and disintegrated granite, and the sea is close at hand.

In the rock garden at Abbotsbury Castle, Dorsetshire, a very large number of species are to be seen in the most vigorous health. This rock garden is formed just at the top of the Chesil Beach, where in westerly gales the flying drift must be blown into the unprotected garden, but the *Mesembryanthemums* evidently revel in the situation. In the Isle of Wight these plants flourish, as they also do at Kingswear on a steep and sunny slope at the mouth of the river Dart. The climate in the four localities named being mild, it may be inferred that warmth is imperative for *Mesembryanthemums*, but that this is not essential where other conditions are favourable may be gathered from the fact that *M. roseum* has lived out through the winter unprotected as far north as Scarborough, where it has flowered abundantly in the summer.

A good deal of uncertainty exists in the nomenclature of *Mesembryanthemums*, the descriptions of some of the species in the horticultural dictionaries being so dissimilar to the plants flowering under the same names in the best collections that one naturally writes with diffidence on the subject. Perhaps the best-known species is *M. edule* (the thick-leaved Hottentot Fig), which bears large yellow flowers. Its blossoms are said by a certain horticultural dictionary to be pink. From its



fruit jam is extensively made in Cape Colony. It was this trailing plant that M. Jules Verne, in a thrilling romance of African adventure, makes three horsemen shelter under during a tropical thunderstorm, complete protection being afforded them by its *umbraeous branches*. It grows rampantly in the Scillies and along the southern coasts of Devon and Cornwall, and at Newlyn Harbour spreads a veil of foliage over a wall lapped at the foot by the salt water. *M. acinaciforme* is a far handsomer species, with the same thick leafage as *M. edule*, but bearing large blossoms of deep rose colour 4 inches in diameter. Of the smaller flowered species *M. amœnum* and *M. tenuifolium* are the two most brilliant that I am acquainted with, the blossoms being of a vivid crimson-scarlet, absolutely dazzling in the sunlight. The former, which I myself brought from the Cape, is perhaps a trifle less glowing than the latter, but there is little difference. The colours of these two species, given in gardening dictionaries, do not bear the faintest resemblance to the hues displayed by plants in full bloom at Abbotsbury. *M. coccineum* is another species bearing bright red flowers. *M. caulescens* has deep red flowers about half the size of those of the last-named. *M. aurantiacum* bears flowers of a deep orange tint, and is one of the earliest to bloom. *M. aureum* has also orange-yellow blossoms. Other attractive species are *M. lepidum* (white), *M. lineolatum* (pink), *M. productum* (rosy purple, given in the dictionaries as pale pink), *M. roseum* (bright rose), and *M. rostratum* (yellow). *M. tigrinum* is an interesting plant, chiefly remarkable for its foliage, the hollowed leaves being edged with curved spines, which give the idea of a tiger's expanded jaws.

In the south-west *Mesembryanthemums* are rarely killed by the winter, though totally unprotected. Old plants, however, sometimes become bare and ragged, and for this reason it is advisable to raise cuttings, which strike readily in the autumn, to take the places of old specimens that have been rendered unsightly by age. *Mesembryanthemums* are difficult to obtain through the trade, catalogue after catalogue making no mention of the name. Any firm enterprising enough to take an acre of land on the coast of southern Cornwall would have no difficulty in getting together and growing unprotected in the open a representative collection, from which the wants of such amateurs as are able successfully to grow the genus might be supplied. At present it is only through the generosity of owners of private collections that the different species can be obtained.

S. W. FITZHERBERT.

Kingswear, South Devon.

#### A NOTE FROM ARBIGLAND, N.B.

IN the South of Scotland there are several gardens which are highly favoured as regards climate and position. One of these is that of Arbigland, the property of Colonel C. E. Blackett, a place which has for years been steadily growing in interest to garden lovers. Favoured as Arbigland is, it is seldom that there are so many half-hardy flowers in bloom in the garden there on the 1st of November as this season. Not a *Dahlia* had been cut down by frost; *Tropæolums* and many other tender things were in bloom on that day, and the garden was wonderfully bright for the time of year. At such a late date one could not expect to see everything at its best, for *Begonias* were almost over, though still in flower. *Hollyhocks* were nearly past, too, although they have been unusually good and almost free from disease. There were thousands of *Dahlia* blooms, the singles in particular being remarkably good for the season. One had also an opportunity of

seeing the *Cactus Dahlias* and comparing their qualities for garden decoration. The three best were *Starfish*, *Mrs. J. J. Crowe*, and *Red Rover*, the first being undoubtedly the best; it was almost covered with flowers. *Green's White* had plenty of flowers, and was good early in the season, though latterly, on account of the want of sun, it had lost much of its purity of colouring.

Half-hardy annuals were full of bloom, while early *Chrysanthemums* were giving plenty of flowers. The later varieties are just opening, but give promise of fine blooms. There was also a good show of *Pentstemons*, the produce of two different strains of seed, and both showing the great advance made in these flowers within recent years. A fine effect was made by pillars of *Tropæolum aduncum* (*peregrinum*), the *Canary Creeper*.

Roses have been largely added to at Arbigland in recent years, and one had an opportunity of noting which were the best for the locality for the time of year. Undoubtedly the freest flowerer, apart from the *Chinas*, is *Rêve d'Or*, which was laden with capital flowers. *Mme. Isaac Periere* has been good this season also, but may not be so fine in a warm season as in this cool one.

The autumn tints in the grounds were beautiful, and one unnamed *Maple*, which had been sent from Canada, was so fine that an effort is being made to secure some others of the same species, its identification being in progress.

The *Bamboos* in the Japanese garden formed last autumn are doing well, and there is no doubt that Arbigland is well suited for these graceful and attractive plants. It may be mentioned as showing the mildness of the place that old roots of *Cactus Dahlia Juarezii* have been left out in the open ground for several years unprotected without injury. The same mild climate accounts for the splendid *Portugal Laurel*, the finest, I believe, in the South of Scotland.

It is situated near the garden entrance, and has attained to great dimensions, although it has had to be cut in from time to time to prevent its encroachment on the pathway.

S. ARNOTT.

#### PHYSOSTEGIA VIRGINIANA ALBA.

I NOTE on page 204 of THE GARDEN that Mr. Mallett speaks of this variety as "rare," further observing that it "gives promise of becoming quite as strong and free as the type." I can assure Mr. Mallett it is all this, and has been so for many years now. This plant is anything but rare, indeed it was obtainable at quite a cheap rate a score of years ago, can be had in quantity now if required, and is quite as cheap as many hardy things. Indeed, there is no reason why any plant that yields seeds freely should be scarce. It may also be increased by division as well as by cuttings if required. The plant may be put to a freer use than is now the case perhaps, and particularly for grouping is it to be recommended. It is not happy in hot sandy soils or in those of clay generally, but in

the intermediate class of loamy soils will grow and flower freely. In this locality in light loamy soil, heavily dressed with cow manure, the type and the above always grow apace.

Hampton Hill.

E. JENKINS.

#### CIMICIFUGA JAPONICA AND C. SIMPLEX.

MR. WOLLEY-DOD, in writing of the former plant in THE GARDEN, rightly conjectures that confusion exists in respect to the nomenclature of these things. There is, however, a wide difference between *C. fetida*, which has been flowering in the herb ground at Kew this season, and which Mr. Wolley-Dod cites as equivalent to *C. simplex*. *C. fetida* as grown at Kew is nearly 7 feet high, of rather sparse habit, and with a semi-arching inflorescence of white flowers that present an aspect quite distinct as compared to the erect cylindrical and very pure white of the flowers of the plant long known as *C. japonica*. This latter is the plant that at the Drill Hall recently was said to be *C. simplex*, and it is of a more bushy rounded habit at 2 feet from the ground, as well as possessing the smallest and neatest leafage of any kind. I also remember the plant under the name *Pityrosperma acerinum*, but had overlooked it. The recently certificated plant has been labelled *C. japonica* at Kew until recently, but I believe a doubt now exists as to the accuracy of the name, and the fruiting of the species was then awaited. I have no recollection of the fruit of this species, though I have known the plant for some years. If, however, the certificated plant should prove to be *C. simplex*, the next question is, What is *C. japonica*? I have not had an opportunity of comparing herbarium specimens, but doubtless the matter could be quickly disposed of in this way.



MESEMBRYANTHEMUM ROSEUM IN SOUTH DEVON.



With regard to the actual "award of merit" at the recent meeting, this was granted to the plant upon its merits, as is frequently the case, and not as a novelty. It is, however, difficult to see what good is done in a case where the plant has been many years before the public.

E. JENKINS.

### IN A CORNISH GARDEN.

THOSE who are acquainted with the quiet reaches of the Tamar, that charming river which separates the counties of Devon and Cornwall, know it to be a surpassingly beautiful region of England, where Nature is in one of her most luxuriant moods, as we in northern climes are accustomed to judge of natural luxuriance. A glance at our illustration will convince the reader that the

gardens of Cotehele House are no less beautiful than the surrounding country. There is a picturesqueness and freedom of character apparent, giving a true breath of Nature, in the planting and surroundings of this delightful Cornish abode, that make a charming contrast to the stately and formal gardens that are found in many English counties.

### THE DEATH OF THE LEAVES.

"Earth watches while her little children die."

It is what Emerson calls "a yellow afternoon." We walk out in the pale gold sunshine and the air is full of leaves; not wind-blown, there is not a breath, but silently the leaves come fluttering down, how soft, how slow,

light golden discs from out the Elm trees, Beech leaves of saffron-yellow ribbed with brown, Maple and Chestnut leaves with yellow spots and rims, and jagged Oak leaves tough and tawny. Every notched or pointed leaf, a short-lived butterfly, floats downwards with a movement of its own; no two alike, and each with its own beauty. How, in the glow of sunlight, the light-winged leaflets pause and poise and hover, or glittering turn upon their sides like swimmers. This is their moment of perfect freedom, the supremest of their lives—long looked-for, yet startling when it comes, like death or the first frost. To us it may seem brief, but who can measure time? It may be to them as the time in dreams.

Deeper and deeper grow the leaf-drifts, and ever more thickly strewn the pathway through the woods. Why do the Poplars shiver so, and why are their clinging leaves so timid of the fall? Tremblingly they watch the roadside tumbrels, bearing away their heaped-up comrades to some unknown fate. They have lived their fair green lives against the sky, bathing in dew and sunlight; it is all they know. What of them now? Is this to be the end, to lie apart from their dear boughs, severed from the frost-stricken branches, to die on earth, these creatures that had lived in air?

But the fallen leaves are happy. In their death there is no sting. A crisp and pleasant cheerfulness pervades them as they look up at us instead of down. Happy were their useful lives, and cheerfully they let them go. Even as they are trodden under foot a poignant, delicious fragrance rises responsive to our mood. What joy to childish feet, that revel in the year's dead leaves, kicking them aside to hunt the Acorn's fairy cup, the wrinkled Walnut, the emerald Almond-sheath, the red-brown polished Chestnut, breaking from its bed of cream. Even to the tired feet the dead leaves bring refreshment. There is no lacerating of heart-strings, as when the young die, but a sense of satisfied fulfilment, a feeling of work done, rest won, more pleasing to many of us than the stir and promise of the spring. The setting sun grows brighter as it shines through wet transparent leaves of Lime and Beech; but one more night of frost, one day of storm, and every small frail handmaid of the trees will drop.

"The last red leaf is whirled away."

Gone, ere we could possess them, the magic of the yellow noon, the first crisp frou-frou of the leaves. No remnant now upon the barren spires save one belated lingerer high up on the Plane tree, who shakes his farewells with a fingerless glove.

Whither have they vanished, those varying myriads that in spring had made the woods so fair? On some light flutterers the winds have seized; there are fine frolickings upon the hill and up and down the lane, where rich damp ruts and cart tracks are strewn with golden guineas. To the kitten on the lawn the scattered, Beech and



IN THE GARDENS AT COTEHELE, CORNWALL.



Chestnut burrs are playmates. Willow leaves are drawn down out of sight to feed strange creatures below ground. Rose leaves, tender hearted, are making robin redbreast palls to cover the dead flowers; the stoutly-fibred will weave lace-leaves—miracles of fineness, to be found at Christmas time in humid corners or near the brook. But some will know the happiest fate of all—it is to lie in the quiet sanctuaries of the woods, where forest trees may stand in them knee deep. Silent are the rhapsodies of red and gold, the symphonies of bronze and russet, sheltered by the patient brotherhood of boughs; the soft damp leaves, more sombre every day, sink slowly to their uniform brown rest. Deep is their content. Faithful to each other in life, in death the leaves and trees are not divided.

F. A. B.

## AN ARTIST'S NOTE-BOOK.

### ROSE MILDRED GRANT (HYBRID TEA).

None who saw the fine bloom of this variety that obtained the silver medal at the Temple show will readily forget it. Magnificent in its high tapering centre, wonderful in petal, the outer ones measuring fully 4 inches deep, and lovely in its delicate blush-white colouring, this Rose certainly stood out as evidencing the greatest achievement of the hybridist's art. I do not like to find fault with such a Rose, but to me the tint of pink seemed wanting a little in brightness. This, however, is a small point, and will not in the least detract from its great merits. One thought on admiring this bloom what would such an one be with the colouring of Victor Hugo or Ma Capucine? Are these fancies too extravagant or shall we obtain them in the near future? I am optimistic enough to believe that we shall. P.

## THE INDOOR GARDEN.

### LACHENALIAS FOR BASKETS.

AMONGST the large number of early-flowering bulbs none excel the Lachenalias for providing a show of flowers in early spring. Although they may be very successfully cultivated in pots, it is not of that method I wish to treat in this article, but rather to bring to the amateur's notice their general usefulness as material for planting in hanging baskets in order to embellish the conservatory or greenhouse. What are their general characteristics? They are these: Firstly, the Lachenalias are the easiest of bulbs to grow; secondly, they take up very little room when grown in the way suggested; thirdly, they increase rapidly, and seldom fail to produce a good crop of flowers, accompanied by a profusion of foliage ornamental in itself. These three points then will justify my remarks.

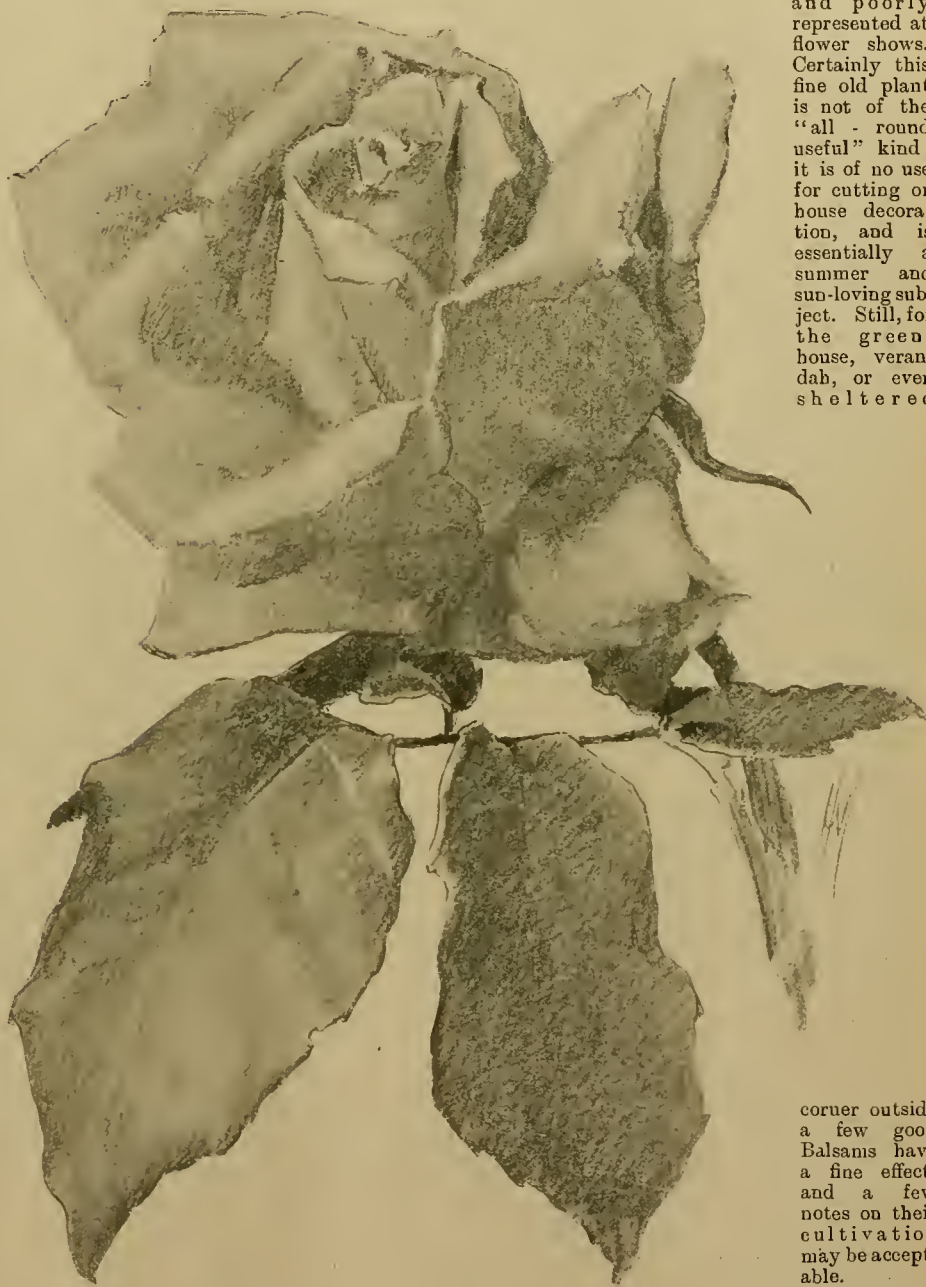
The best season for potting the Lachenalia is the latter end of August, therefore by this time the bulbs ought to be well advanced in growth. It is advisable to start them in pots, as in this way they will be ready for baskets which may have been out of doors during the summer months, or if baskets can be spared the bulbs may be planted in them and placed in a suitable situation to start.

Lachenalias require a rich compost, and when they have this the growth is astonishing. A suitable compost may consist of good fibrous loam one part, leaf-mould one part, sand and well-

decayed cow manure making up the remainder. Well "crock" some 2-inch pots and place two or three bulbs in each, just covering them with fine soil. Give the pots a good watering and place them in a cool frame, giving them no more water until the growth is well advanced. As soon as they are about 3 inches high they may be turned out of the pots and replanted in baskets, using the same rich compost as before and placing plants from seven or eight pots in each basket according to their dimensions. When they are well rooted

### THE BALSAM.

"A WELL-GROWN Balsam is a bonnie plant, but a bad one is an ugly weed," an old master of mine used to say, and perhaps there are few plants which show the effects of good or bad treatment so plainly. Considering their easy culture, provided a suitable place is to be had, and the great beauty of a good specimen, I think it must be the want of the little extra attention which makes them so comparatively rare in our greenhouses and poorly represented at flower shows. Certainly this fine old plant is not of the "all-round useful" kind; it is of no use for cutting or house decoration, and is essentially a summer and sun-loving subject. Still, for the greenhouse, verandah, or even sheltered



HYBRID TEA ROSE MILDRED GRANT. (From a drawing by H. G. Moon.)

there is no fear of over-watering them, except when the bulbs have finished flowering, water being then gradually withheld until the tops have died down. It is advisable when repotting to use only the finest bulbs, the smaller sizes being placed in a suitable medium to grow and make flowering bulbs for the following year. These three Lachenalias—*L. pendula*, *L. Nelsoni*, and *L. tricolor*—are suitable for hanging baskets, but the first-named is preferable.

J. DENMAN.

*The Laurels, Cairns Cross, Stroud.*

grow them is in a light frame placed on a mild hot-bed where they can be kept close to the glass. Seeds must be sown in spring; towards the end of April is a good time, but they can be sown a week or two sooner or later as required. Sow in pans or boxes of light soil, and plunge in a heat of about 75°. A good compost consists of loam (three parts), leaf-mould and well rotted manure (one part each), sand as seems desirable, and perhaps a little bone-meal. The plant is a gross feeder, and nothing in the shape of artificial manure, soot, &c., comes wrong

corner outside a few good Balsams have a fine effect, and a few notes on their cultivation may be acceptable.

I may say that the very best place to



if used with reasonable moderation. When the young plants are well up they need potting into 2½-inch pots. No crocks are required till the last shift, the rougher part of the compost being sufficient. Pot deeply and moderately firm, return to the hot-bed, and water carefully with water about the temperature of the bed. This is important in the earlier stages of the plant's growth, and desirable all along. After potting, a little shading may be necessary for a day or two, but the less the better. It is as well to have a few plants more than will be ultimately needed to allow of a weakly one or two being discarded. The next move will be into about 5-inch pots, although this will depend on the size of their flowering pots. A good plant can be grown in a 7-inch or even a 6-inch pot, but they can be grown to fill pots 9 inches or even 11 inches in diameter.

An excellent plan is to leave about one-third of the pot to be filled up by degrees with rich compost as the plant requires it. Some pinch their plants several times, others prefer them grown naturally. There are those who say they ought to be carefully staked, others maintain that staking spoils them. While I believe that good plants may be had in all the different ways, my own preference is for unpinched plants, not exactly unstaked, but staked as little as may be. If large plants are wanted it is as well to pick off the flower-buds for a time as they appear, stopping this two or three weeks before the display is desired. Air should be afforded in increasing quantities as the season advances, so that by flowering time they need little or no protection if the weather is good. Insects seldom, in fact never, trouble them if the accommodation and treatment are what they should be. JAMES EWING.

*The Gardens, Castle Menzies, N.B.*

### CASSIA CORYMBOSA.

THIS pretty free-flowering species of Cassia is not so frequently met with in gardens as its merits deserve, for apart from its great beauty as a yellow-flowering greenhouse climber, it is admirably adapted for placing in the flower garden during the summer months. Many positions will suggest themselves for exposing the beauty of the plants either in the sub-tropical garden among other stately plants usually made use of, or as a group or colony near the margins of sparsely disposed shrubberies. The extreme beauty of its large corymbs of deep yellow flowers and the dark green leafage cannot but be much admired. When treated as a half-hardy shrub for the garden, cuttings of half-ripened wood will quickly root if inserted at this time, provided the cultivator has a warm pit or propagating house in which to plunge them. I find they strike more readily in autumn than in spring, though they will strike in the latter season if taken off with a heel of the old wood attached. By striking the cuttings in autumn the plants may be grown on gently all winter, thus building up a strong plant by June; before then it will not be advisable to plant them in the open. This Cassia repays liberal treatment, therefore the position intended for it should be prepared beforehand by digging out and wheeling away the soil if uncongenial and replacing with some enriched loam and old potting soil. If the soil of the garden is fairly rich and light I would advise digging in some stiffer soil, together with some rich manure.

On the approach of frost the plants must be lifted with a ball of earth if possible, and potted up for storing in the greenhouse for the winter months, partially withholding the supply of water. In February the plants should be repotted into fresh maiden soil and pruned back to wood that is ripe. Place them in humid heat to induce them to break, afterwards growing them in a somewhat cooler structure until in April or May they are placed in a sheltered part of the frame ground to harden in readiness for planting out about the second week in June. For covering a back wall of a conservatory or greenhouse this Cassia is unsurpassed. The border should be restricted if the plant is to be permanent, as over-luxuriant growth will be made at the expense of flowers. I have

this Cassia against the wall of a lofty house, and it has reached a height of 12 feet. I have seen plants 20 feet high. The border in which this is growing is 20 inches wide and 28 inches deep.

Like many other plants that used to be accorded stove treatment this Cassia has been proved to thrive equally as well and even better in a cool greenhouse, and also to assist in no small measure in the embellishment of our flower gardens during summer. H. T. MARTIN.

### STATICE LATIFOLIA.

ALL the Statice are deserving of cultivation, whether for the embellishment of the greenhouse or for giving variety in the flower garden. Such greenhouse species as *S. profusa* are of inestimable value for providing a wealth of blue flowers that will remain fresh on the plant for a long time; these may also be dried with other flowers of an everlasting character for placing in vases without water during the dull winter months. The past summer appears to have been favourable to the free growth of *S. latifolia*, which is perfectly hardy, and several well-established plants of this have flowered most profusely here. So distinct and beautiful have they been among other herbaceous plants that one has been tempted to leave the spikes of flowers upon the plants for a longer time than is advisable. To retain them too long is a great strain that none but strong, healthy, established plants can well support without injury. If cut when the myriads of flowers are open and dry we find them most useful for a variety of decorative work in winter.

*Stoneleigh Abbey Gardens, Warwick.* H. T. M.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### CORDON APPLE TREES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I am about to plant an edging of cordon Apples along both sides of a garden walk about 1 foot from the ground. I should feel greatly obliged if you would kindly give me a list of what you consider to be the best for the purpose, size of bloom, colour of fruit, free-bearing, and hardness to be considered before quality of fruit. J. M.

[To order successfully to grow low cordon Apple trees the varieties planted must be free growers. As the primary object our correspondent has in view is to plant his cordons for rich colouring effect of the fruit in autumn and for the charm of the flowers in spring, irrespective of quality of fruit, there is no necessity to include any weak or uncertain growers in the list. The following list includes Apples of large size, rich colouring, and handsome appearance, the flowers of most of them being large and beautifully coloured:—

*Beauty of Bath.*—A well-known early exhibition variety of moderate size and rich colouring.

*Lady Sudeley.*—An exquisitely coloured variety, of free growth, and a good cropper.

*Duchess of Oldenburg.*—One of the surest croppers, as it is one of the most highly coloured and handsome.

*Worcester Pearmain.*—This well-known and popular Apple needs no description. Its handsome crimson skin, abundant bearing qualities, and good flavour have secured for it a very high position in the estimation of fruit growers.

*Red Astrachan.*—One of the brightest and most attractive of all Apples.

*Emperor Alexander.*—For handsome appearance when ripe this variety is truly an emperor amongst Apples. The fruit is of immense size, beautiful conical shape, of a rich and handsome colour, good cropper, and a free grower.

*Washington.*—A fine exhibition variety, large, and of exquisitely delicate colouring.

*Peasgood's Nonsuch.*—This variety attains an enormous size, especially when grown as a cordon.

As a handsome exhibition variety it is one of the most highly valued. Its colour is golden, streaked with light crimson.

*Gascogne's Scarlet.*—This is the most brilliantly-coloured Apple we possess, and from an ornamental point of view indispensable.

*Charles Ross.*—A new variety of handsome appearance. A seedling from Cox's Orange Pippin, and said to be hardier and a better grower than that superb variety.

*Golden Noble.*—This distinct and noble Apple of the colour of guinea gold must not be omitted.

*King of the Pippins.*—This high-class and highly-coloured old Apple should be included.

*Lane's Prince Albert.*—Large and handsome, never fails to bear.

*Mère du Ménage.*—One of the most distinctly coloured Apples we have. Of large size, prolific, and of a deep claret colour, densely suffused by a lovely bloom.

*Newton Wonder.*—Immense size, something like Blenheim Orange (which is one of its parents). An introduction of recent years, and destined to take its place as one of the largest, handsomest, and most valuable late Apples we possess.

*Calville Rouge Précoce.*—One of the highest coloured, and valuable for exhibition.

The list of beautiful and attractively coloured Apples might be largely extended, but the above include the best. For the beauty and profusion of its bloom more particularly we must not omit to mention the Wise Apple, Court Pendu Plat, an illustration of which was given in THE GARDEN a few weeks ago. Cordons should be grown on the English, not French, Paradise stock. See article in THE GARDEN of last week on this subject.—ED.]

### VERATRUM ALBUM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Your fine illustration of *Veratrum viride* in the issue of October 25 prompts me to refer to the somewhat considerable difficulty there is in dealing with *Veratrum*s, in consequence of their prodigious growth below ground; also to mention a singular method of natural multiplication that may not be generally known.

The *Veratrum* I grow is *V. album*. In a border not favourable to the deep rooting of most plants, this one, while confining its top growth for three or four years to a single spike, sends out from a solid root-stock tier upon tier of supple thong-like roots (at an angle of about 45°) of a length of about 2 feet. When soil is shaken from them the roots are too dense to do anything with; they need to be nearly all cut away before replanting. Thus treated plants will grow away freely, but take about three years to establish themselves before producing their massive flower-stems. Seeds are uncertain of germination, and seedlings do not flower for some years.

Early in October the leaves fade and hang about the stem. Then on each of the strongest stems, about 4 inches from the ground, I find one thick green bud 1½ inches long this year and as thick as a man's thumb; from each side of the bud a thick white root runs down between the hard woody stem and the bast-like outer bark. These buds may easily pass unnoticed. They are not always so prominent or so green as this season, and the clinging leaves conceal them. In view of the difficulty of division and of seed germination it is probable that buds provide the most natural means of increase. Buds make flowering plants in the second year. My plants this year are fully 6 feet high. DUDLEY DOCKER.

*King's Norton, Worcestershire.*

### SHRUBS FOR HEDGE AND GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Considered as hedge or screen bushes, can you tell me the chief comparative points in Cypress, Thuja, Retinospora, and Junipers? Will they all stand pruning flat for a hedge, and is July the proper time to prune them? My preference would be for golden or silver varieties, and the hedge to be kept about 6 feet or less in height. When one sees young conifers in a nursery most of



them look very much alike, and to the uninitiated it is hard to guess whether they are dwarfs twenty years old or of the Californian big tree variety; nor do I know of any easy means of finding out from books on gardening, as conifers and evergreens are generally dismissed in a page or two of generalities, with perhaps an allusion to Lebanon and some fine Cedar the writer's great-uncle saw fifty years ago in Palestine.

WILLIAM B. WELCH.

[The Junipers, Thujas, Cupressus or Cypress, with which last the Retinosporas are now incorporated, though they are kept distinct in most gardens and nurseries, differ from each other in various botanical particulars, though to the uninitiated there is a great sameness in all of them. For hedges of 6 feet or less one of the best is Lawson's Cypress (*Cupressus lawsoniana*), which is cheap, grows quickly, and stands cutting well. The foliage of this is of a pleasing shade of green, but as you prefer gold or silver forms the best we can recommend are *Retinospora plumosa aurea* or *R. pisifera aurea*, which resemble each other in many particulars. Two other and cheaper *Retinosporas*, viz., *R. obtusa* and *R. pisifera*, can also be recommended for the same purpose. For taller hedges, that is to say, where 6 feet is the minimum instead of the maximum, a further choice is open to you, as the following are available: *Thuja Lobbi*, a rich and effective green at all seasons; *Thuja occidentalis*, scarcely as good as the last; and the *Deodar* (*Cedrus deodara*), whose drooping shoots are very pretty. In the case of coniferous plants the pruning is best done in the spring before the plants start growth, as the young shoots are particularly attractive, and if carried out in July they are cut off in the height of their beauty. After all there is no other conifer to equal the Yew as a hedge, and if you prefer the golden-leaved forms they will conform to the same rules as the ordinary kinds. Effective plants of these are, however, costly to buy, and for a hedge at a comparatively cheap rate we should recommend *Cupressus lawsoniana*. You do not say whether the place is near the sea, but as your letter is dated from Folkestone we thought it might be so, in which case there is no better hedge plant than the *Tamarisk*, which in summer is equal to any of the conifers, and stands cutting and sea breezes well.—Ed.]

#### THE POTATO CROP OF 1902.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The interesting remarks by your correspondent "W. S.," Rood Ashton, Wilts, in a recent number of *THE GARDEN* re this year's Potato crop, is a subject that ought to call forth remarks from many districts. Speaking of the Liverpool district generally, which boasts of its splendid Potato acreage, I am bound to say that the crop is large and very free from disease; in fact, I have spoken to many farmers and have inspected their produce, the one verdict being that, considering the season, the yield is capital; magnificent samples only realise sixpence per peck in almost every shop in the city. Up-to-date has been and is yet a standard market variety. British Queen is with us a splendid Potato. It is, however, somewhat tender, and proves a fine second early variety. Pioneer and Charles Fidler are sterling varieties, and Empire, on light ground, has been a great gain.

Maiaacrop commands the highest price, but for two or three years the stock has been perceptibly smaller, notwithstanding the change of seed, and many large growers pin their faith on Langworthy. Abundance, too, finds a ready sale, being a most heavy cropper. Change of seed is an important factor here, the increased yield showing at once the advisability of this. New manure at one time was considered the correct thing when Potato planting; now, in some instances, an autumn dressing is given, and on land of a clayey nature works well. On light soils the use of newer manure is more suitable.

Like "W. S.," I believe that much disease is caused through heavy manuring, and one has only to try experiments in this direction to justify the statement. In conclusion, there is one other subject to which I attach great importance as spreading disease, viz., too close planting between the rows. This season has been wet and cold, growth has been rampant, and the haulm has become a thicket where air and light could not possibly play their proper parts. Far different were the plants allowed more space.

Liverpool.

A. B.

## THE FRUIT GARDEN.

### PEAR CONFERENCE.

THIS Pear is well worth adding to a list of the best varieties, for it has several good points—it is of handsome appearance, crops heavily, and the flavour is equal to that of many mid-season varieties. This Pear was certificated at the conference at Chiswick in

as soon as possible. To this treatment a thoroughly good shaking of the boughs of the infested tree so as to bring down the injured fruit will be of service. Also spreading a coat of quicklime on a dry day beneath the infested tree and then slaking it might have a good effect in killing the escaping maggots.

When Pears are grown in grass orchards a deal of the fallen infested fruit would be cleared off by having sheep on the ground. If the tree roots are not too near the surface the plan of skimming the surface and turning the earth with its contained pests would answer well.

The Pear leaf disease known as "blister," which is caused by a minute cylindrical four-legged mite (*Phytoptus pyri*) does great harm to Pear leafage. Where there are only a few leaves infested or the trees are small it is well to pick these leaves off and burn them as soon as the attack is observed.

Most of the insects that prove disastrous to the Apple may frequently be found on the Pear, and should be dealt with as described for Apples.

PLUM.

The Plum aphid or green fly (*Aphis pruni*) is to be found on Apple, Medlar, Peach, and Apricot, besides the various kinds of Plum, and is exceed-



PEAR CONFERENCE. (Two-thirds natural size.)

1885. The shape is pyriform, skin a deep green and russet colour; the tree is a robust grower, thriving well both on the Quince and Pear stocks. The fruit is in season during late October and November; when grown on a wall I should advise a cool aspect if the fruits are wanted late in the autumn. G. W.

### INJURIOUS INSECTS AND DISEASES AFFECTING FRUIT TREES.

(Continued from page 262.)

#### PEAR.

THE Pear gnaw midge (*Diplosis pyrivora*) is a very frequent trouble to Pear growers, from the damage caused by its little legless, yellowish white maggots, living in numbers inside the young Pears in their very early condition. Consequently, on the maggots feeding within the fruits the growth of the young Pears is checked and stunted, the centre decays, and the fruit cracks or dies and drops off. As preventive measures, in cases where the crop is in reach, pick off the little stunted Pears, also gather up the fallen fruit and destroy

ingly destructive. Multiplication of the insects takes place by millions, and these close up the pores of the leaves by their tenacious excretions and the mealy exudations from their bodies. They are to be found collected in numerous colonies on the under side of leaves of the young shoots, and are sometimes found in parties on the stems of the green fruit.

As a remedy, washes with a foundation of soft soap are the most desirable, because they have the great advantage of sticking in some degree to the aphides which is necessary in order to kill them.

The winter moth (*Cheimatobia brumata*) is perhaps the most injurious of all our orchard insects. In some years, when favoured by drought and heat, the mischief is widespread. The caterpillars prey on the leaves and buds of Plum, Apple, Pear, Cherry, and Nut, and sometimes on Currants. In regard to this pest it may be well to call attention to the fact that where young trees are fastened to stakes it is necessary that something be done to stop the traffic up these supports, and thence to the trees; also where bundles of sticks are tied round the trees to prevent their being gnawed by animals, the guards themselves



will probably be a source of caterpillar attack at hatching time in spring unless well looked after. The guards or stakes therefore should be well tarred and a greased band placed on the tree above the supports or protections.

The following method of grease-banding for fruit trees was suggested by the late Miss E. Ormerod, LL.D., which recommends itself by its simplicity and cheapness, a consideration when some hundreds of trees have to be attended to. The material employed is a kind of tough paper, which is used by grocers for wrapping up butter, lard, and the like, and is known as grease-proof paper. This is applied by a band, as many inches wide as is thought fit (the wider the better), being passed round the stem of the tree. The band should be cut long enough for the ends to overlap well, and these are fastened by paste. The whole is made secure by a piece of bast mat tied round the paper near each edge. This work can be rapidly and well done by women. On the paper bands the grease, on application, may be spread in any way preferred, but the best way is considered to be to lay it on with a thin, flat piece of wood, and plentifully, both as to width of band and thickness of layer.

J. J. WILLIS.

(To be continued.)

### STRAWBERRIES FOR FORCING.

By this time all Strawberries required for forcing should have had the crowns thoroughly ripened. Unless this has been carefully attended to, success and a full crop of delicious fruit cannot be guaranteed. I have this season seen plants placed under a very shady wall, where the sun could hardly reach them, and placed so thickly together that the foliage was weak and poor. Now the result in this case will be a partial if not a total failure. Strawberry plants, as soon as they are potted up, should be placed in full sun and carefully attended to as regards watering, &c. As soon as the hard weather sets in the plants may be placed together and plunged in ashes. This will prevent the pots being broken by frosts. Great care should be exercised as regards the forcing of the plants. The plants do not require too much heat; a minimum of 50°, rising to 70° in the day time, will be found to force them naturally and ensure a crop of juicy Strawberries out of season.

JOHN DENMAN.

*The Laurels, Cains Cross, Stroud.*

### GLEANINGS FROM RECENT BOOKS.

DEEPER KNOWLEDGE WANTED.—“I am often struck with the total ignorance the younger generation of England displays of anything connected with plants and flowers, or of country life and its pursuits. I was standing one day in a garden with a young lady, a relation of some neighbours of ours; she was here on a visit, and I remarked to her on the beauty of the *Acanthus* in her brother's garden. She beamed. ‘*Acanthus*, Ah! do tell me, which are the *Acanthus*?’ We were just then standing among them. She was a most æsthetic young woman—St. George's correspondence classes, and all the rest of it. I knew in a moment that my mention of *Acanthus* had touched the chord of Corinthian capitals, Greek architecture, &c., but it was odd. This young person embroidered her own dresses in the most approved high art shades, and went about in raiment of a cut and style that was the despair of her Tuscan residential relation, who was a person of very good taste in all his surroundings. But she was not a solitary example of ignorance. I was asked one day if my garden possessed any ‘Japanese Orchids.’ I have never connected Orchids with Japan, and do not recall having seen any while there, and I answered in the negative; but presently we passed a bed of Spanish Irises, and the enquirer, pointing to them, said, ‘There are the Japanese Orchids I was asking for.’ No doubt he had heard Irises called, as they sometimes are, the ‘poor man's Orchids,’ and muddled it up. I have also been told of *Hortensias* flower-

ing in the open in the month of March, and on going to inspect these remarkable plants found them to be the large leaved *Megasea*. The latest information I have had was that Larkspurs were *Lupins*, but I could multiply instances of astounding ignorance in regard to gardening matters of the most ordinary description among people who have presumably had some opportunities afforded them of knowing better.”—From “In a Tuscan Garden.”

## GARDENING OF THE WEEK.

### KITCHEN GARDEN.

WE have now arrived at a season of the year which, so far as the cultivation of the kitchen garden is concerned, is the least important of all. Nevertheless, there is little time to rest on our oars, and the enthusiastic cultivator of high-class vegetables can always find plenty to occupy his mind and time even in the dead of winter, if he makes up his mind to excel in this, perhaps the most important branch of gardening. It is well to bear in mind that first-class produce is not obtained by merely manuring, digging, and sowing the seed, but is the result of careful and well thought-out plans, and though some may be favoured by much more genial soils and other advantages than others, it by no means follows, unless advantage is taken of them, that the best success will be attained. As I have often pointed out, by a thorough system of cultivation almost any land may be made to produce good vegetables. A plan should be made of the garden and a site selected where each crop is to be grown next season, and as far as possible the ground treated accordingly. Endeavour to change the land annually for most things, exception being made of such as Onions, Horse-radish, and Artichokes; on no account should the Brassicas be grown two seasons in succession on the same land or clubbing is almost certain to follow. In some localities this causes much trouble, and when such is the case after the ground is turned up thorough good dressings of soot, fresh lime, cinder, and wood ashes should be given.

We are very much at the mercy of the weather at this season, especially so on wet, heavy ground, and must shape our course accordingly. Take advantage whenever it is dry and frosty to get as much wheeling done as possible, and on no account attempt to work the soil when in a wet state or the consequences will be, by the time the season comes round again for getting in the crops, instead of its being in a suitable state for receiving them it will be just the reverse. No time should now be lost in making everything as safe as possible in case of a hard winter. “Safe bind, safe find” is an old proverb which should always be borne in mind, and though in some seasons we may go to an unnecessary amount of labour and trouble, it is always best to be on the safe side. Any work which is in arrears should be pushed on without further delay. All white Broccoli should be layered or it is certain to suffer considerably after such a mild autumn.

Protecting material should be got in readiness for protecting Globe Artichokes, and some suckers potted up unless done as previously advised. Lift and store sufficient roots of Parsnips, Chicory, Salsafy, Jerusalem Artichokes, and Scorzonera for a few weeks' supply, but the bulk is best left in the ground.

Pull and store all Turnips which are of a suitable size, and draw soil over the smaller ones. Mould up all Cabbages.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### INDOOR GARDEN.

#### ZONAL PELARGONIUMS

THAT were rooted in the summer and are growing in 3-inch pots may be potted into their flowering pots. Over-potting must be avoided, as Pelargoniums flower most satisfactorily if allowed to

become somewhat pot-bound and liberally fed with liquid manures. Good fibrous loam, pulled to pieces with the hand, and dried manure, with a free admixture of wood ash and silver sand, will make the best compost. It is essential that the soil should be rammed fairly firm in potting or the growth will be sappy. Afford good drainage and water with great care during winter. Keep the plants near the glass in a light airy pit with a rather dry atmosphere. The plants should be stopped occasionally in order to encourage a sturdy growth, and all flower-buds pinched off. Show, decorative, and fancy Pelargoniums require somewhat similar treatment. Due attention must be given to the training and tying of the growth of the earliest batches. Later plants should be kept pinched, a sharp look out kept for green fly, and measures taken to eradicate this pest. Vaporising is the best remedy.

#### HUMEA ELEGANS.

Well-rooted plants should be shifted into larger sized pots. Thorough drainage and a rich porous compost are two essentials to the successful cultivation of these plants. Watering should be practised with exceeding care. Air must be admitted on all favourable occasions, as nothing is so liable to weaken the constitution of the *Humea* as a close humid atmosphere. Fire-heat should only be applied to keep out frost.

#### HYACINTHS.

For the early supply of flowers the single varieties, as the buds show, should be transferred to the forcing house, according to demands. Keep the plants near the light, and employ as little heat as possible. A high temperature will cause weak growth and poor colour. Tulips withstand a higher temperature better than the Hyacinth. In any case the temperature of the forcing house should not be allowed to exceed 65°. A succession of Narcissi and Jonquils should be forced at intervals.

#### GREENHOUSE CLIMBERS.

Thin out the weak shoots of *Lapagerias*, retaining all strong shoots thrown up from the base. These plants should be sponged over frequently, as insect pests are liable to infest them. Roses should have any small weak growths cut hard back, but all strong shoots should be retained. The shoots of *Cobea scandens*, *Tacsonias*, and similar climbers that have ceased to flower should be tied and rearranged.

JOHN FLEMING.

*Wexham Park Gardens, Slough.*

### THE FRUIT GARDEN.

#### THE WINTER MOTH.

It is now somewhat late to recommend measures to prevent the female insects ascending the stems of trees of Apples and Pears in order to deposit their eggs; it is, however, far better to take preventive measures even now than not at all, and it pays to attend to trees with short stems as well as standards. The method usually adopted is to procure grease-proof paper bands from 4 inches to 6 inches in width and sufficiently long to encircle the stems and slightly overlap. These should be made perfectly secure in such a way as will prevent a moth getting under them. Bands for the purpose and a grease preparation also are in the market, and can be readily procured. It is necessary, owing to the grease in a measure losing its adhesiveness from exposure, occasionally to re-dress the bands with it.

#### PRUNING WALL TREES.

It is advisable to commence the winter pruning upon wall trees soon after the leaves fall, and this affords a suitable opportunity to repair defective walls, their copings or trellises, and to cleanse them from injurious insects that may be there. An insecticide composed of caustic soda and crude potash, properly diluted with hot water, is now generally used. The pruning may suitably begin with Morello Cherries, but if the young wood was properly managed during summer this will not be a big undertaking. A general thinning of trees encumbered with unproductive branches should be made. Lay in young wood where there is room.



Relieve the trees also of spurs or other useless growths that unduly crowd them with foliage. Provided the superfluous shoots of the Sweet Cherry tree were carefully disbudded and pinched in the summer all that is now necessary is to shorten overgrown spurs, or thin those that are badly placed in cases where they are too thick. Young trees that have not filled their allotted space, and have had their extending shoots properly trained, and the remainder either disbudded or pinched in the summer, will only need to have their strongest leading growths shortened to a wood bud in order to cause sufficient shoots properly to furnish the trees with branches.

#### PRUNING PLUMS.

Only dessert varieties, and of these more especially the best late ones, are usually given wall space in the southern counties. In colder districts, however, more common kinds require wall protection. It is a difficult matter to keep aged trees in a fruitful condition without their spurs extending away from the wall, although much may be done by shortening and thinning to obviate this. Young growths may be in many cases trained to take the place of unprofitable branches, and in the case of cordon trees a wall may, by adopting this principle of treatment, be readily re-clothed with young wood. Young fan-trained trees that have not covered their allotted space will only require their extending shoots to be properly shortened, unless disbudding and stopping has been neglected, when the young wood must be discreetly thinned.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

#### ORCHIDS.

##### EPIDENDRUM ENDRESIO-WALLISII.

THIS is, as its name indicates, a hybrid between *E. Endresii* and *E. Wallisii*. Of the numerous *Epidendrum* hybrids now available the above is one of the most pleasing, the flowers, though neither large nor showy, being very pretty, and owing to their great variation upon different plants one can scarcely believe them to be the offspring of the same parents. The flowers are produced from the apex of the stems (which grow from 1 foot to 2 feet high) in the late winter and early spring, last long in perfection, and being of a somewhat fleshy nature are not so easily affected by fog as is the case with many Orchid flowers. These, like the majority of hybrids, are easy to cultivate, and generally develop two growths in one year, and flower from both at the same time. They should be grown in pots, rather large, according to the size of the plants, as they root with exceptional freedom. They should be repotted when beginning to grow or when new roots are coming from the base of the bulbs, using as compost equal proportions of peat and sphagnum moss, or leaf-soil may be used as a rooting medium. They thrive well here in a light position in the coolest part of the Cattleya house, shaded from the direct rays of the sun at all times, and always kept moderately dry at the root at every season of the year.

SOPHRO-CATTELEYA EXIMIA (*C. BOWRINGIANA* × *SOPHRONITIS GRANDIFLORA*).

This is a very handsome little hybrid, dwarf and compact in growth, with flowers generally produced in winter or late autumn from the top of the bulbs somewhat before the latter have fully developed. The sepals and petals are bright purplish rose, lip dark purple-rose, with a light yellow throat. This should be grown in small pans suspended from the roof of the cool intermediate

house in spring, summer, and autumn, and placed in a light position in the Cattleya house during winter. When larger receptacles are needed transfer to others when growth begins, and use as compost peat and sphagnum moss.

SOPHRO-CATTELEYA CHAMBERLAINII (*CATTELEYA LODDIGESII* VAR. *HARRISONIANA* × *SOPHRONITIS GRANDIFLORA*).

Of the *Sophro-Cattleya* hybrids this is one of the most beautiful. It is a good companion to the other named, the flowers being comparatively large, sepals and petals brilliant rose-purple, the front lobe of the lip and the margins of the side lobes being the same colour, with the disc and throat of lip bright yellow, white towards the base. This is also of rather dwarf growth, and is best grown in pans or baskets suspended, otherwise the treatment recommended for *Sophro-Cattleya eximia* is suitable. These *Sophro-Cattleya* hybrids should not be kept too dry at the root during winter, as *Cattleyas* generally are, but should have sufficient water to keep them plump and healthy.



A NEW CHRYSANTHEMUM: LADY PRIMROSE (Colour of flowers, pale yellow.)

autumn. The flower-spikes issue from the base of the young growths and bear numerous flowers from 2 inches to 3 inches across; the sepals and petals are green, heavily marked with dark purple; the front lobe of the lip is white, broken with radiating lines of bright violet-blue, crest white, with violet-blue lines. It is strong and vigorous, and needs ample rooting space. It is grown here in the cool intermediate house, under exactly the same treatment as given to *Zygopetalum Perrenoudi*. F. W. THURGOOD.

*Rosslyn Gardens, Stamford Hill, N.*

#### A NEW CHRYSANTHEMUM.

##### LADY PRIMROSE.

THIS new early-flowering *Chrysanthemum* is a primrose-yellow sport from the well-known variety white *Mme. Desgrange*. It originated in the nursery of Mr. G. Lange, Hampton. The plant grows about 3 feet high, and has handsome dark green foliage; and the one illustrated, which was growing in a 5-inch pot, carried a dozen really good blooms of a clear and pleasing colour. They are of medium size, and appear to last in beauty for a considerable time.

#### MISCELLANEOUS.

##### Chrysanthemums at Maidenhead.—Mr. E. F. Such.

—As most of the trade growers of the *Chrysanthemum* have their own speciality, so Mr. Such, of Maidenhead, may be said to pay particular attention to the early varieties, which are yearly becoming more interesting to amateurs and others who require them for border decoration. Mr. Such's collection is a large and comprehensive one, for he has altogether about 240 varieties, which he grows in the open in many thousands, and of the later sorts that require the usual glass protection he has also a goodly number for specimen blooms. Our visit was rather too late to see the earlies at their best, but enough remained for the purpose of demonstrating the great practical utility of outdoor *Chrysanthemums*. *Plinie d'Or*, a very free-flowering golden-yellow little Japanese, is most effective. *Crimsons* of various tones, but mostly rich and deep, are found in *Crimson King*,

*Goacher's Crimson*, and *Coral Queen*, a really pretty little gem. *Bronze Martinmas* is very close and neat in form, being a curious tone of pinkish buff. In whites the old *Sœur Melanie*, *Queen of the Earlies*, and *White Quintus* are helpful, and among other varieties of this section *Mme. Desgranges*, its yellow sport *Gustave Wermig*, and a pale lilac-pink called *Glory of the Pacific* help to enliven the display. Large show varieties occupy one of the numerous glass structures in Mr. Such's establishment. Very rich and of good size is *W. R. Church*, a deep rosy plum-coloured crimson, with gold reverse. *Mrs. Barkley*, soft rosy mauve, and several older ones like *Colonel W. B. Smith*, *Edith Tabor*, the *Vivand Morel* family, make a charming colour arrangement. *Mrs. Coombes*, a pretty silvery pink and of good size, is always attractive. *Soleil d'Octobre*, soft pale yellow; *Mme. Gabriel Debrie*, the deep golden-yellow of *Le Grand Dragon*; and other well known standard sorts too numerous to mention all find a place in the collection.

ZYGOPETALUM PERRENOUDI (ZYGOPETALUM INTERMEDIUM × ZYGOPETALUM GAUTIERI).

The *Zygopetalum* hybrids are beautiful, interesting, and distinct, and the above is one of the best. It flowers generally during the spring months. The spikes issue from the base of the young growths when the latter are from 4 inches to 6 inches high, and bear from six to twelve large and fragrant flowers, having the sepals and petals purple-brown, with a light green base, lip broad suffused with purple, with dark violet-purple radiating veins, crest white, with purple ridges. This hybrid grows well here in a light position at the warmest part of the cool intermediate house, potted entirely in leaf-mould. Repotting should take place if necessary when new roots issue from the base of the young growths. These should never be allowed to suffer for want of water, though much less is needed when grown in leaf-mould.

ZYGO-COLAX AMESIANA (ZYGOPETALUM BRACHYPETALUM × COLAX JUGOSUS).

This is a handsome hybrid, and in bloom during



**Chrysanthemums at Roupell Park.**—At Messrs. John Peed and Son's nurseries the other day we were pleased to find such a grand display. In the house used for cultivating pot Vines we found quite a representative up-to-date collection. Among the finest flowers we noticed Mrs. White Popham, Mrs. F. G. Greenfield, Mrs. E. G. Fox, Mr. T. Carrington, Matthew Smith, Mrs. G. Mileham, Lord Salisbury, and Mme. Carnot. A striking feature of the grower's ability is that many of the best flowers are found on plants 1 foot to 2 feet high in 6-inch pots. We were informed that the firm have a larger demand for single-flowered Chrysanthemums. Messrs. Peed sent out many beautiful varieties, amongst those distributed last year being Bessie Conway, a lovely white; Crown Jewel, large bronzy yellow; Little Pet, soft pink; May Baylis, pale mauve; Fairy Queen, yellow ground, tinted bronze. The new varieties to be sent out this year include the following: Edgar Forbes, pale pink, very large; Roupell Beauty, a gem, dark plum; J. F. McLeod, deep pink, grand flower; Starlight, canary-yellow; Yellow Purity, straw colour, very pretty; and Pink Beauty, pale pink, large form. We were much interested before leaving to see the houses of Begonias with the last season's seed-pods ripening. Mr. Bastin assured us that it was the best seed season they had ever experienced. Judging from the enormous quantities of Begonias just being taken up, good results have evidently been had from the 100,000 seedlings planted out in May and June.

**Chrysanthemums at the Floral Nursery, Maidenhead.**—The Floral Nursery, Castle Hill, Maidenhead, was for many years an important centre for the distribution of new seedling Chrysanthemums, and was, as will be remembered, carried on by the late Mr. Robert Owen, who has now for his successor a son bearing the same name. Judging by some very promising examples of new seedlings that were in full bloom at the time of our visit, there seems to be good reason for supposing that the son will ere long follow in the father's footsteps. We were much interested in the novelties which are under trial, some of them being fine examples of exhibition blooms, but being at present unnamed cannot very well be enumerated at length. The general collection includes all the popular standard varieties of recent introduction, which are certainly in as good form as any we have seen elsewhere. Several greenhouses are devoted to the purpose of flowering the plants, and, dealing first with those of the large-flowering type, we need only mention that all the Viviani Morel family are grown and flowered in capital form, that others of more recent introduction, such as Matthew Smith, Mrs. Barkley, Miss Elsie Fulton, Jane Molyneux, Florence Molyneux (both immense white varieties), Lily Mountford, and Mrs. George Mileham quite maintain their reputation for size and colour. French seedlings are well represented by the large silver-pink N.C.S. Jubilee, which seems to be good everywhere; Mme. Gustave Henry, a big useful white; the curious green Mme. Ed. Rogers; M. Chenon de Leché, with its wonderful mingling of salmon, rose, and gold; Mme. G. Brnant, a large white suffused purple; Soleil d'Octobre, pale canary-yellow; and Mme. Marie Liger Ligneau, silvery pink, very deep in build, and fairly large in size, seems to be a more substantial flower than when we saw it first at the Paris Exhibition in 1900. Yellows are particularly rich and numerous. M. Anatole Rible is a sport from Nellie Pockett, Sir George White, Lord Ludlow, Mrs. Greenfield, R. Hooper Pearson, the richest perhaps of all. Rich purple is well shown in W. R. Church, a large solid-looking flower, beside which Australia looks dull and dingy; Ernest Bettisworth, Mrs. White Popham, and William Bardney are other varieties of the same shade. One or two large incurved varieties are notable instances of the change that is coming over this old-fashioned section. A nice little lot of early-flowering varieties in pots were making a good display of bright colour; Mme. G. Menier, very free, colour purple; Mme. Jacob, chestnut-crimson; Ryecroft Glory, another very free bloomer, deep yellow;

old Source d'Or, always bright and effective; M. William Holmes, Roi des Precoces, O. J. Quintus, and its white sport; Pluie d'Or, a fine rich golden-yellow; and many other well-known useful varieties for outdoor purposes were in the collection.

**Chrysanthemums at Battersea Park.**—If there is one feature about the show of Chrysanthemums at Battersea Park that differentiates it from all others it is the wonderfully attractive way in which the front, side and ends of the greenhouse are decorated with freely-flowered little Japanese and Pompon varieties. The kinds used this year for the purpose are worthy of enumeration, because nowadays there is an evident desire on the part of many growers to use the golden flower more and more as a decorative subject. In the Pompons, Rosinante, Aigle d'Or, Sunset, La Vogue, and Mlle. Elise Dordan are profusely flowered and help to cover the front of the greenhouse and new part of the roof. Larger forms include Elsie, L'Ile des plaisirs, Source d'Or, and an old favourite, Margot, the last-named in particular making a grand display over the entrance and exit, right up high to the ridge of the house. The collection is arranged in a large sloping and undulating bank of bloom from the rear, and is indeed one of the most attractive of its kind. There can be no service to the public at large in minutely describing in extravagant language varieties that are already well known to every grower of the flower, for so far as novelties go these are never to be met with in the displays at the parks. They are chiefly older varieties of known merit, interspersed here and there with a few modern kinds that have already figured to advantage elsewhere. Incurves are numerous, but not the modern race of mongrel-bred, ill-shaped monstrosities that are rapidly displacing the old type we used to see at our shows, Lord Alcester, Baron Hirsch, Mr. Bunn, Jeanne d'Arc, White Beverley, and Golden Beverley are some examples of a type that for form cannot be beaten. For richness of colour in the Anemone group nothing can possibly surpass Descartes, a fine deep wine-coloured crimson, and in hairy kinds the palm for size and distinctness must be awarded to Hairy Wonder. Esau also belongs to the same section, but is much smaller, the colour being soft rosy pink of a silk-like hue shaded gold. Beauty of Truro is also included. In Japanese there is a floral feast of colour difficult for words to describe. The blooms range from the most massive of the big show varieties down to the smallest of the decorative kinds. We hardly know how to deal with them, but perhaps the shortest method is to arrange them in their groups of origin. Thus Continental varieties from various raisers include the ever-popular Viviani Morel, M. Freeman, a dwarf, useful pink; M. Wm. Holmes, a capital October crinon decorative variety of great service; and Calvat's varieties. Colonial growers contribute some of the finest for size and most effective in colour. Home growers are of course well represented, many of their varieties being very charming in their colours. The day of American novelties seems to be over for the present, although there is a possibility that the Chicago show of the American Chrysanthemum Society may do much to awaken a revival. A. H. Fewkes, a deep golden-yellow; William Tricker, a very useful decorative pink; Belle of Castlewood, pale pink, are seedlings of Transatlantic origin.

**Chrysanthemums at Ryecroft Nursery, Lewisham.**—As a raiser and distributor of new and choice Chrysanthemums during the past decade, few specialists, perhaps, have achieved greater success than the proprietor of Ryecroft Nursery, Lewisham. The Chrysanthemums here have never been seen in better form, the two large show houses being well filled with plants carrying blooms of all up-to-date sorts and novelties which are to be distributed in the ensuing spring. On the occasion of our visit to Ryecroft the Japanese blooms throughout the whole collection were very fine, and proved most conclusively that if the plants could do so well within the metropolitan area, how much better

they would succeed in the pure air of our country gardens. One is struck with the improved form which characterises many of the better novelties, the time when large, coarse, and rough-looking blooms were in the ascendant evidently now being past. Colour, too, has improved. Glorious and warm tones of colour appeared to prevail everywhere, and poor and washy sorts were much less frequently met with. The rich yellow blooms of Mrs. Greenfield, somewhat in the way of Phœbus, but infinitely superior, were everywhere in evidence, proving its consistency as an exhibition variety. This was distributed by Mr. Jones, as was Mrs. George Mileham, which has turned out so well already this season. Numerous blooms of this refined and handsome bright rose-pink Japanese sort were to be seen in typical condition; it is without a doubt one of the best Japanese in cultivation. The refined and deeply built blooms of Miss Evelyn Douglas impressed one with their value, the pleasing shade of rosy mauve colouring standing out distinctly. C. Penford is another very deep bloom of a reddish crimson colour with a buff reverse, and appeared to open kindly on all buds. The blooms of Baden Powell were very rich and striking, the brick-red colouring being very telling. The rich claret colour of the deep blooms of Mrs. R. Darby proved what a splendid acquisition they were for exhibition uses; this variety was distributed from Ryecroft, as was that of Mrs. J. C. Neville, a grand white Japanese flower of spreading form. These two sorts should be a great help to all exhibitors. The recently certificated Mme. Paolo Radaelli convinced one that the judgment of the National Chrysanthemum Society's floral committee in this instance was not misplaced. It is a very large bloom of great depth and splendid substance; colour, pale rose on a cream ground, tinted yellow in the centre. In Bessie Godfrey, too, we have a distinct acquisition of a clear canary-yellow colour. The flowers were frequently in evidence and in splendid character; they are very full and of spreading form. A glowing crimson sent out last spring is J. C. Hill; the blooms denote distinct advance in flowers of a crimson shade, the petals being long and broad, building up a Japanese flower of reflexing form. One of the largest Japanese is General Hatton, its great breadth and the splendid substance of the petals, together with its rich golden-yellow colour, stamps this superb sort as an invaluable exhibition flower, and one of the best things our Antipodean raisers have sent us. W. R. Church here, as everywhere else this season, is doing exceedingly well, developing enormous neatly formed blooms of Japanese incurved character, with inside colouring of the deepest chestnut colour, with rich bronze reverse to the broad florets. The way the charming bright canary-yellow flowers of Earl of Arran are developing seem to prove how little is known of its excellent qualities. It is a grand flower for exhibition purposes, having petals some 7 inches or 8 inches in length, and these build a flower of a graceful drooping form. Godfrey's Pride, a bloom which caused some surprise last year, is doing splendidly here, plenty of plants carrying lovely carmine-crimson flowers being much in evidence. Mr. Jones has secured the stock of some fifteen superb Japanese sorts raised by Mr. Henry Perkins, at Greenlands, Henley-on-Thames. Many of these gems were in the first prize stands of this grower at the National Chrysanthemum Society's Aquarium show, and very telling they were. Specially grand are Henry Perkins, a very large reddish crimson flower, and on a late bud, deep rich crimson; Viscountess Cranbourne, a distinct and bright shade of canary-yellow, and most effective; this won two first prizes in vases; it is a magnificent self-coloured bloom. Countess of Harrowby, a large drooping flower, colour lovely soft pink, petals 8 inches long; Mary Perkins, a lovely chrome-yellow, certificated at the October show of the National Chrysanthemum Society; Sir William Acland, another immense bloom of drooping form, colour reddish bronze; the Hon. Mrs. A. Acland, a deep rich yellow of even form, midway between Edith Tabor and R. H. Pearson in colour; Countess of Arran, a lovely refined Japanese, with petals 8 inches long, colour cerise-pink on a creamy buff



ground; Miss Cicely, a charming rich yellow, with long tubular petals—Gloriosa in type; Earl of Harrowby, a bloom of graceful build, colour rich glowing bright lake, invaluable to exhibitors; and Viscount Cranbourne, a large crimson-red. Miss Mildred Ware, the Lady Hanham coloured Mme. Carnot seedling, is also one of the good things to be sent out in the spring.

**Chrysanthemums at Brockwell Park.**—Although this is a very large park and there is no other within easy distance where a Chrysanthemum show is held, the display here has to be accommodated in a small conservatory attached to the old residence. So far as is possible, Mr. Curle, the superintendent, provides a very excellent display, but his efforts are of course very much cramped for want of room. In the hairy section, Esau, a pretty silky variety of soft rose and golden-yellow, is one of the most interesting, although for rivals it has the deep yellow King of the Hirsutes, and the bronzy cinnamon buff of great size and exceptional popularity, Hairy Wonder. Anemones, as in all the parks, come in for a share of attention, Descartes, a tall growing deep wine-coloured self, being at once the largest in size and richest in colour. Mrs. P. R. Dunn, a pure white, is another conspicuous instance of the decorative value of the Anemones. Incurves are best represented by Chrysanthemiste Bruant, C. H. Curtis, and Baron Hirsch, the remainder of the varieties worthy of notice being of the Japanese section. As at all the parks, Mme. Ed. Roger, the green variety, is freely grown for the curiosity it excites. The Vivand Morel group is a family that is always useful. Then we noticed W. H. Lincoln, Phœbus, Mrs. W. Mease, and Source d'Or in the varying shades of yellow. La Triomphante, an old pink, seems to survive in the parks and nowhere else, for what reason it seems difficult to determine, unless it is its earliness, in which respect Mrs. E. G. Hill is also useful. Rosy pink is found in Mlle. Mélanie Fabre, Mrs. Coombes, William Tricker, and one or two others, and then deeper shades of purple are supplied by the inclusion of the big massive blooms of Mr. T. Carrington, Pride of Madford, Mrs. Barkley, and the like. There are many other sorts of well-known merit, but they are such as are usually grown in the parks under the care of the London County Council, a body that does not seem to encourage very much diversity of variety. Anyhow, the varieties are mostly useful for the purpose of a long display, and they seem to be highly appreciated by the visitors wherever we go.

## SOCIETIES.

### SHEFFIELD CHRYSANTHEMUM SHOW.

The exhibition of the Sheffield Chrysanthemum Society, which took place in the historic Cutlers' Hall on Friday and Saturday, 14th and 15th inst., will long be regarded as an eventful occasion in the history of the society. The display of cut blooms on this occasion was remarkable for its excellence, and rarely, if ever, has such quality been represented before. The two growers who have been invincible for years—Mr. F. S. Vallis in the Japanese section and Mr. W. Higgs in the incurved section—brought splendid exhibits from the south, and more than held their own in the friendly rivalry with the exhibitors in the midlands and the north.

#### CUT BLOOMS.

The principal class in the incurved section was one for twenty-four cut blooms in not less than eighteen varieties. In this competition Mr. W. Higgs, gardener to Mr. J. B. Hankey, Fetcham Park, Leatherhead, easily outdistanced his rivals, preserving intact his five years unbeaten record. His blooms were very large, of even form and globular, and superbly finished withal. Smaller flowers of good form secured second prize for Mr. C. Crooks, gardener to the Dowager Lady Hindlip, Hadsor House, Droitwich, and heavy blooms, less neatly finished, placing Mr. C. W. Findlow, gardener to Mr. A. J. Oakshott, Oakland, Birkenhead, third. For twelve incurved, distinct, a good lot of typical blooms found Mr. Crooks leading. His flowers of Lady Isabel, Duchess of Fife, Charles Curtis, James Agate, Miss Nellie Southam, and Mr. H. J. Jones were splendidly represented. Less even big blooms secured second position for Mr. F. J. Clark, gardener to Mr. Mark Firth, Wistow Hall, Leicester. The same positions were maintained by the two last mentioned exhibitors in the class for six incurved blooms, distinct.

The chief event in the Japanese section was the competition for prizes in the class for twenty-four Japanese blooms, in not less than eighteen varieties. Mr. F. S. Vallis, Bronham, Chippenham, asserted his superiority in this instance,

winning in grand style with large and heavy blooms of good colour and beautiful finish. Rarely, indeed, has such superb quality been seen before. The second prize winner came as a surprise, few persons being aware that Mr. Higgs was so good a grower of the Japanese flower. His was a beautiful and bright exhibit, and contained many flowers of great merit. Third prize was placed to the credit of Mr. A. Alderman, gardener to Mr. J. D. Ellis, Sparken House, Workson.

In the class for twelve Japanese blooms, distinct, Mr. Vallis was again found leading with a beautiful lot of high class flowers. Mr. C. Crooks, with rather smaller flowers, was second, and Mr. Clark third. Again did Mr. Vallis lead, and this time for six Japanese blooms, distinct. They were a fine lot, E. Molyneux being splendidly shown with others. A smaller set won second prize for Mr. Clark, who in turn was followed by Mr. Crooks.

Anemones, large flowered, were represented by one exhibit only. This came from Mr. R. Agar, gardener to Mr. S. Roberts, M.P., Queen's Tower, and they were beautifully shown. Equally good was the only exhibit of six reflexed blooms, distinct, and this was exhibited by Mr. C. Scott.

Five societies in affiliation with the Sheffield society competed for a cup and good cash prizes, in a class for twelve incurved and twelve Japanese in not less than eighteen varieties. The Chesterfield Chrysanthemum Society led with a heavy exhibit of Japanese blooms and somewhat indifferent incurved flowers. Good incurved and poor Japanese blooms placed the Sun Inn Chrysanthemum Society second; last year's winner, the Nether Hallam Chrysanthemum Society, being awarded third prize.

In the special prizes for vases, arranged for decorative effect, the exhibitors have much to learn, the competition, however, was good, and proved that it was the beginning of better things. The district classes for cut blooms were well contested, and some highly creditable blooms were shown by the members. Japanese and incurved were well balanced in so far as regards quantity and freely-flowered sprays of Pompons made a welcome change in the display. Successful exhibitors in this section were Messrs. T. Lucas, R. Agar, C. Scott, A. Alderman, T. J. Nelson, N. Buxton, and others.

Groups open to the district (a radius of twenty miles), composed of flowering and foliaged plants, made an attractive display. That from Mr. Sheridan, gardener to Mr. J. Basset, Endcliffe Crescent, was a good first. Well coloured foliage and flowering plants were pleasingly grouped and made an effective display. A bold and imposing group of high merit secured second prize for Mr. E. Austin, Berry Hill, Chesterfield.

Five similar groups, 40 feet square, with semi-circular fronts, open in this instance to amateurs and cottagers, were quite a feature. That securing first prize for Mr. C. Cook, Wardsend, was a capital arrangement of bright foliage plants, Chrysanthemums, and a few other flowering plants; Mr. P. T. Burton was a creditable second, and this was closely followed with a group from Mr. H. Headland, Pitsmoor Gardens.

Table decorations were interesting, though hardly up to the usual standard. With pink Tea Roses, Lily of the Valley, Begonia Gloire de Lorraine, and appropriate foliage Mr. Sheridan was first; a pretty table placed Mr. J. Marsden, gardener to Major Blake, Mynhurst, Eccleshall, second, and Mr. W. Donaldson, Meersbrook, was third.

Trade exhibits were well carried out. Messrs. Shaw and Sons, 16, Broad Street, Sheffield, had a splendid group of fine foliaged plants. From Mr. S. W. Seagrave, Sheffield, also came a superb group of highly coloured Crotons and other foliage plants with Chrysanthemums. The two above exhibits each received a gold medal, as did the comprehensive display of dessert fruits and floral devices and designs, very ably arranged and displayed by Messrs. W. Artindale and Son, 90, High Street, Sheffield. Harps, wreaths, crosses, chaplets, hand-baskets, &c., were beautifully executed. Messrs. John Peed and Son sent a splendid collection of Apples and Pears, for which they received a silver-gilt medal.

Chrysanthemum novelties were shown by Mr. H. J. Jones, Ryecroft Nursery, Lewisham, to whom certificates were granted for Japanese Henry Perkins, Edith Smith, and Mrs. F. Grimwade. Novelties also came from Messrs. Wells and Co., Limited, Redhill, and certificates were granted to General Hutton and F. S. Vallis. To Mr. W. Hrusley, the courteous and able secretary, much praise is due for the excellence of the arrangements of the show, and his efforts were ably supported by an enthusiastic body of workers on the committee.

### EDINBURGH EXHIBITION.

In the Waverley Market the annual autumn show was held on the 13th and 14th inst., and was a great success, no less a sum than £327 being taken at the doors on the first day. Taken as a whole it was one of the best shows seen this season. Fruit was exceptionally good, Grapes in particular; vegetables numerous and good; trade exhibits adding to the interest of the display in no small degree. Mr. Long had everything in order as far as the arrangements were concerned.

Cut blooms were numerous, over 2,000 being staged in the various classes set apart for them.

#### VASE CLASSES.

Nowhere can so many classes be found exclusively for blooms arranged in vases as here. The principal class is that for twenty varieties, three blooms of each, for which handsome prizes were offered, consisting of the City of Edinburgh Victoria Memorial piece of plate value £20, with £10 added. Seven competed, making a grand display. Mr. T. Lunt, gardener to Captain Stirling, Keir, Dunblane, was once more successful, winning premier honours with an excellent set of blooms. To a bloom of Princess de Brancana, a charming white-flowered variety, was awarded the prize for premier bloom in the show. Mr. R. Kenyon, Woodford, Essex, was a very close second, with extremely fine flowers; Mr. Nicoll, Rossie, Forgandenny, a good third.

For the Scottish Challenge Cup eight competed, showing the deep interest taken here in this class, which is for twelve varieties, Japanese, three of each. Mr. J. Cumming, Grantully Castle, won quite easily with a pleasing display; Mr. L. McLean, Alloa, a good second; Mr. D. Nicholson, Strathallan Castle, third.

For six blooms, each of four varieties, Japanese, Mr. D. Nicoll won premier position; Mr. W. J. Norman, Rosehaugh, Ross-shire, third.

For two varieties, six of each, Lord Ludlow and Mrs. Mileham in almost perfect condition won for Mr. Kenyon the leading position; Mr. A. McInnes, Eskhill, Inveresk, second; with Mr. D. Kidd, Carberry House, Musselburgh, third. Mrs. J. Lewis won for Mr. D. McKay, Viewbank, Lasswade, the leading place for six Japanese, any one variety; Mr. C. Harris, Parfin, Carlisle, second.

For twenty-four Japanese, any varieties, arranged in four vases, eleven competed, making a bold display. Mr. T. Lunt won with typical examples of popular varieties; Mr. D. Kidd second; Mr. McLean third.

For four vases, three blooms in each, Mr. W. Lumley had the best of six sets; Mr. R. Whannel, Drumchapel, second.

Single-flowered varieties were a distinct failure as regards the number of competitors taking part this season as compared to earlier shows.

Japanese, staged on the orthodox stands, were plentiful. For twelve distinct, Mr. Kenyon secured the premier award with good blooms; Mr. Lunt was a close second.

Incurved varieties were but moderately staged. For twelve distinct, Mr. Martin, Corndean Hall, was the only exhibitor, and was rightly awarded first prize. Mr. Martin also won for six varieties. In the class for six blooms, any one variety, the competition was of a keener nature. Mr. W. Moir, with J. Agate of medium size, won premier place.

This society offers a silver medal for the best new Chrysanthemum not in commerce. To Mr. W. Duckham, incurved Japanese, rose-pink in colour, belonging to Messrs. Wells and Co., Earlswood, Redhill, this award was made; the second prize also falling to this firm for incurved Pantia Ralli.

Plants were staged mainly in an undeveloped condition, showing the ill effects of the backward season. For six specimens, Mr. W. G. Mitchell, Boroughfield, Edinburgh, was first. Single-flowered varieties were much more freely flowered, Mr. Pullman winning for a single specimen with one of Miss Rose, also for yellow and bronze-flowered varieties.

For a group of miscellaneous plants, including Chrysanthemums, arranged for effect in a space 20 feet by 10 feet, there were but two exhibitors. Mr. G. Wood won the leading position with a meritorious display; Mr. P. G. Hunt, Landsdown House, Murrayfield, second.

Fruit made a good display. Grapes were especially well represented. For four bunches, distinct, Mr. L. Leslie, Pitcullen House, Perth, won the first prize with Muscat of Alexandria, Gros Colman, Appley Towers, and Alicante; Mr. D. Kidd second. For two bunches, one black and one white, Mr. A. Kirk, Alloa, was the premier prize taker. Muscat of Alexandria was capitally staged by Mr. Kirk in the class set apart for that variety; Mr. D. Kidd second. Mr. Kirk also won for two bunches, any variety, with Cooper's Black, quite perfect in finish.

For a collection of fruit, eight varieties, Mr. Kidd won with good Grapes, Apples, and Pears; Mr. McIntyre, The Glen, Innerleithen, second.

A new class was this year added to the schedule by this association. The handsome prizes of £20, £15, and £10 was offered for the most effective exhibit of bouquets, wreaths, &c., known as floral work, Messrs. Todd and Co., art florists, Edinburgh, being the only competitor, and were awarded the premier prize for a charming display.

Trade exhibits were numerous, adding much to the interest of the show. A gold medal was awarded to Mr. W. J. Godfrey, Exmouth, Devon, for a handsome display of Chrysanthemums, Carnations, and zonal Geraniums, embracing many novelties, mainly of his own raising. Messrs. Wells and Co., Earlswood, Redhill, had a small exhibit of new Chrysanthemums, yet containing many instructive new varieties. Messrs. Dobbie, Rothsay, had much the best collection of Potatoes yet seen in Edinburgh, quite fifty baskets of choice varieties, all of handsome appearance. Messrs. Isaac House and Son, Bristol, had Violets in quantity. Messrs. G. Boyes and Co., Aylestone Nurseries, Leicester, Carnations of brilliant colouring and capital quality. Mr. John Downie, 144, Prince's Street, Edinburgh, shrubs in quantity, arranged tastefully in the body of the market.

### ROYAL HORTICULTURAL SOCIETY.

#### DRILL HALL MEETING.

#### ORCHID COMMITTEE.

PRESENT: Harry J. Veitch, Esq. (chairman), Messrs. J. O'Brien, de B. Crawshaw, Norman C. Cookson, Frank A. Rehder, N. F. Bilney, James Douglas, John Cypher, H. J. Chapman, F. W. Ashton, G. F. Moore, E. Hill, J. W. Odell, W. Boxall, W. H. Young, W. H. White, H. A. Tracy, H. Ballantine, H. Little, and Jeremiah Colman.

Captain Holford, C.I.E., Westobirt, Tetbury (Orchid grower, Mr. Alexander), was awarded the large gold medal for a magnificent display of Orchids, the group filling half for one of the long tables. In the centre was a splendid plant of Cattleya bowringiana, bearing ten grand spikes of flowers. On either side were small groups of Oncidium varicosum, very brilliant yellow, and close by were three plants of Cypripedium insigne Harefield Hall variety, one bearing four flowers, one having two, and the other a solitary bloom; Vanda cœrulea, Cypripediums in great variety, Lælio-Cattleya Ingrami, Cattleya labiata, L.-C. blotchleyensis, and Cymbidium tracyanum, a splendid plant carrying three grand spikes of flowers. The chief interest, however, of this exhibit was in the choice collection of Cypripediums. The following, among others, were included: C. insignis montanum aureum, C. i. Incidum, C. i. sanderianum, C. i. Sanderæ, C. i. Westobirt var., C. i. Dormanii, C. i. leucanum superbum, C. i. l. giganteum, C. i. Ethel, C. i. citrina, and C. i. leucanum Low's variety.



Messrs. James Cypher and Sons, Cheltenham, had an excellent display of *Cypripediums* in many beautiful varieties. We noticed *C. insigne* Sandere, *C. i. Ernestii*, *C. i. Harefield Hall* variety, *C. Niohe*, *C. leeanum* vars., *C. Fascinator*, *C. arthurianum*, *C. i. Chantini*, *C. leeanum* virginale, *C. nitens*, *C. leeanum aureum*, &c. Silver-gilt Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited several choice *Cypripediums*, notably *C. insigne* Harefield Hall variety, *C. i. Sandere*, *C. Acteas*, as well as a collection of handsome hybrid *Cattleyas* and *Laelio-Cattleyas*. *L. C. haroldiana superba* (*L. tenebrosa* × *C. x hardyana*), *L. C. C. G. Roebing* (*L. purpurata alba* × *C. gaskelliana*), *L. C. Pallas*, *L. C. dominiana langleyensis*, *L. C. Terentia* (*L. crispata* × *C. bicolor*), &c. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, showed a group of Orchids that contained much of interest; for instance, *Cymbidium tracyanum*, *L. C. Decia*, *L. C. bowring-Clive*, *Masdevallia macrura*, *L. C. blethleyensis*, *Cypripedium insigne leeanum*, *Odontoglossum tripidium-crispum*, *C. Transvaal superbum*, *Laelia pumila* var., *Miltonia leopoldiana*, *Dendrobium formosum giganteum*, *Oncidium crispum* var., &c. Silver Banksian medal.

N. C. Cookson, Esq., was given a silver Banksian medal for a small group of Orchids that contained *Calanthe Triumphans*, *Cypripedium Chapmanii* and *C. insigne* Harefield Hall var., *Calanthe Kenneth*, *Cattleya labiata* oakwoodensis, &c. Silver Banksian medal.

W. P. Burkinshaw, Esq., The West Hill, Hessele, near Hull, showed *Cypripedium insigne* Harefield Hall variety, *C. i. Hessele* variety, *C. gowerianum magnificum* Hessele var., and *C. x prospero majus* (*C. insigne* Sandere × *C. spicerianum*). Vote of thanks.

Messrs. Hugh Low and Co., Enfield, showed *Cypripedium insigne* Sandere (beautiful colour), *C. i. Harefield Hall* variety, *C. leeanum magnificum*, and *Cattleya labiata amesiana*.

*Laelio-Cattleya Marie* (*C. Warneri* × *L. digbyana*) was sent by the Right Hon. J. Chamberlain, M.P., Highbury, Birmingham (Orchid grower, Mr. J. Mackay).

Baron Schröder, The Dell, Egham (gardener, Mr. H. Ballantine), exhibited *Odontoglossum Kolfae* var. and *O. Harryano-crispum* var. *giganteum*, both plants bearing excellent spikes of handsome flowers.

*Dendrobium wardianum* Fowleri was well shown by J. Gurney Fowler, Esq., Glebelands, South Wondford (gardener, Mr. J. Davis).

J. Wellesley, Esq., Westfield, Woking (gardener, Mr. J. Gilbert), sent a plant of *Vanda corulea* bearing a raceme of rich blue flowers, also *Laelia Gilbertii*, a natural hybrid between *L. tenebrosa* × *C. elegans*.

A botanical certificate was given to *Bulbophyllum Eri-smii*, sent by the Hon. Walter Rothschild, Tring Park (gardener, Mr. E. Hill).

#### CERTIFICATED ORCHIDS.

*Laelio-Cattleya Thorntonii* var. *grandiflora*.—*Laelio digbyana* and *Cattleya gaskelliana* are the parents of this lovely hybrid. The lip, in which lies the chief beauty, is very large, beautifully fringed, and of a rose-lilac colour, except for a mass of pale greenish yellow in the centre, reaching beneath the whole of the column. The sepals and petals are a soft rich lilac, tinged with pale buff. The colouring of this flower is very beautiful and effective. From Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

*Laelio-Cattleya statteriana superba*.—A flower of distinct colouring, the result of a cross between *Cattleya labiata* and *Laelia Perini*. The sepals are a clear pale lilac, the petals lilac, slightly suffused with rose. The lip is of a rich purple, and stands out strikingly by the pale-coloured sepals and petals. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

*Cattleya vigeriana*.—M. Ch. Maron, Brunay, France, exhibited this hybrid *Cattleya*, which was obtained by crossing *C. aurea* and *labiata flammea*. A flower of rich and lovely colouring has resulted. The sepals and petals are deep rose-purple; the front portion of the lip is of a deep velvety purple, and the throat lined with white upon a ground of gold and purple. Award of merit.

*Calanthe Triumphans*.—This is a secondary hybrid, whose record is not really known. It is, however, a supposed cross between *C. Oakwood Ruby* and one of the hybrids of *C. vestita*. Except for the two outer sepals, which are almost white, the flower is a dull rosy red throughout. From Norman C. Cookson, Esq., Wylam-on-Tyne (gardener, Mr. H. J. Chapman). Award of merit.

*Laelio-Cattleya x Clive* var. *Sandere*.—The parents of this hybrid *Laelio-Cattleya* are *L. C. Clive* × *Laelia pumila*, and the result of the cross is a well-formed flower of medium size, whose sepals are white, the broad petals tinged with rose. The lower portion of the lip is rich purple, the throat, whose upper portions overlap, being beautifully lined with yellow and purple. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

#### FRUIT AND VEGETABLE COMMITTEE.

Present: George Bunyard, Esq. (chairman), Messrs. J. Cheal, S. Mortimer, Alex. Dean, Edwin Beckett, Horace J. Wright, W. Gleeson, H. Markham, J. Willard, F. L. Lane, G. Norman, James Smith, A. H. Pearson, W. Poupard, and Geo. Wythes.

Messrs. J. Peed and Son, West Norwood, S.E., were given a silver Banksian medal for a collection of hardy fruit, no less than 150 dishes being shown. Many of them were excellent, while some lacked colour, owing, no doubt, to the sunless season.

A new Melon was shown by A. W. Sutton, Esq., Reading. It was a green-fleshed variety of very good quality; the committee asked for this Melon to be again submitted earlier in the season.

Mr. J. Crook, Forde Abbey, Chard, sent some splendid fruits of Winter Nelis Pear.

Messrs. James Veitch and Sons, Limited, Chelsea, showed their new November Raspberry in splendid condition.

Mr. G. Reuther, Feltham, sent remarkably good quinces.

Messrs. Wallace and Co., Colchester, sent two dishes of excellent Allington Pippin Apples.

Mr. Lovelock, Brockhampton Park, Hereford, exhibited some grand dishes of Pears.

Vegetable Marrows of a roundish shape were shown by Mr. W. Edwards, Weybridge.

Messrs. James Veitch and Sons, Limited, Chelsea, exhibited a collection of Borecoles or Kales. They included the new Sprouting, Veitch's Exhibition, variegated and coloured Kales, and others.

Tomato Italian Wonder was shown by Sir Walter Gilbey, Bart. It is a pretty fruit, of good quality, and very freely produced.

#### NEW FRUIT.

*Langley Crab*.—This is a beautiful, rather small fruit, the result of crossing John Downie Crab with Apple King of the Pippins. It is of a pretty yellow colour, very free fruiting, of not unpleasant flavour. It will doubtless prove a valuable addition to the ornamental crabs. From Messrs. J. Veitch and Sons, Limited, Chelsea. Award of merit.

#### FLORAL COMMITTEE.

Present: W. Marshall, Esq. (chairman), Messrs. C. T. Drury, George Nicholson, R. Bean, J. Jennings, W. Howe, G. Reuther, C. Dixon, H. B. May, R. W. Wallace, C. R. Fielder, W. Bain, Chas. Jeffries, H. J. Cuthbush, R. C. Notcutt, C. E. Shea, E. H. Jenkins, Chas. Blick, Harry Turner, G. Paul, E. Mawley, J. H. Fitt, J. Fraser, J. Hudson, H. J. Jones, and the Rev. F. Page Roberts.

The collection of *Platyceriums* from Messrs. J. Hill and Son, Lower Edmonton, was of its kind one of the most interesting and remarkable ever shown at the Drill Hall. The group was excellently staged, and represented the best cultivation; indeed, it would hardly be possible to surpass in their great beauty and variety of forms the plants exhibited.

Many were grown in an unusual way—in pots, and in this manner demonstrated a new value from the decorative point of view. Some very fine pieces were shown, notably a possibly unique example of *P. grande*, the erect fronds of which were nearly 3 feet high and with a spread of some 4 feet. The drooping, forked, fertile fronds were also of interest, and in the pale green of the mature fronds contrasted well with the glaucous examples of *P. Veitchii* immediately below.

This last is quite rigid in habit and very distinct. In point of hardness and graceful beauty *P. alcinore* still takes the lead. *P. Hillii*, a form of the last, is a variety less drooping and with broader fronds, the lobes deeper, and cut into more numerous segments. *P. atropurpureum* was well shown, while the rare *P. angolense* was also represented. Small and large examples of each were shown, and in the elevated group the plants showed to good advantage. Silver-gilt Flora medal.

Messrs. Cannell and Sons, Swanley, set up a splendid lot of plants of *Begonia Gloire de Lorraine* and its white variety Turnford Hall. The former is unmistakably the more showy kind in the dull dark days of winter. Fine bushes, well grown and abundantly flowered, these were indeed very fine examples. Some excellent *Chrysanthemums* were also staged.

Mr. H. J. Jones, Lewisham, had a magnificent display of *Chrysanthemums* in bold vases and groups. In the centre tall vases were filled with gold, crimson, and silver rose-coloured kinds, while the corners were supported with grand vases of Dorothy Pywell, a very good white, broad in petal, and of a crispness that denotes good keeping properties. Another grand white is Mrs. J. C. Neville, flowers large, broad and deep, and very pure; Mme. E. Roger, green-white; Mrs. Greenfield, gold; General Hutton, fine yellow; Lily Mountford, silver and rosy purple, very fine; Dolly Glide, a grand white; H. J. Gillingdon, a yellow Western King; Miss Jessie Cottee, a fine bronze, freckled with gold, a sport from Etoile de Lyon; Mrs. F. Hudson, a fine incurved white; Viscountess Cranbourne, a rich gold, very stiff in petal; William Higge, rich bronze; Mrs. Emma Fox, red-crimson, and many more. Small kinds, as Pompons and others of a decorative character, were freely interspersed with Palms, Ferns, and other material of a useful character. Silver-gilt Banksian medal.

From Messrs. Wells and Co., Limited, Redhill, came a beautiful arrangement of *Chrysanthemums*, single, decorative, and large-flowered kinds in great abundance and of sterling merit. Singles in large vases in groups made a fine background. Among the large flowers we noted such fine things as Mrs. E. Thirkell, gold; Pantia Ralli, bronze; W. R. Church, crimson; Lalia Filkins, a fine silvery rose, very beautiful and refined; Mrs. Barkley; General Hutton, a fine big yellow; F. S. Vallis, rich yellow, very beautiful in form; Ben Wells, a big white; Mrs. T. W. Pockett, yellow; and many more. Market Red is a fine variety for cutting, and rather free, with long stems. Silver-gilt Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, filled one long table with their showy winter-flowering *Begonias*, a really grand sight at this season of the year. Of those shown, *B. Agatha*, obtained by crossing *B. socotrana* and *B. Moonlight*, is a compact *B. Gloire de Lorraine*, very free and dwarf, and of exquisite colouring; *B. Winter Perfection* is a very showy kind, rich in colour, and most profuse flowering; *B. John Heal* is a deep rose-carmine *Gloire de Lorraine*; *B. Mrs. Heal* is the largest and most showy of the lot; *B. Julius* semi-double pink; *B. Success*, a distinct flower of a deep rose and carmine; and *B. Agatha compacta*, which is a dwarf *Gloire de Lorraine*, the plants profusely flowered and about 9 inches high. A group of the showy Mexican *Jacobinia chrysostephana* with golden-orange flowers tipped green made a rich display, and for winter flowering is a most effective subject; good flowering examples were less than 18 inches high and very rich in the mass. Silver-gilt Banksian medal.

Mr. H. J. Jones showed well-grown plants of *Begonia Turnford Hall* and *Gloire de Lorraine*, together with Palms and Crotons.

From Lady Tweedmouth, Brook House, Park Lane, came a charming lot of blooms of Malmaison *Carnations*, the varieties Princess of Wales, Old Blush, and Sir Charles

Freemantle indicated by their size as much as their rich colour the best possible cultivation. We have rarely seen such fine flowers on any occasion, and of the Princess of Wales in particular. Vote of thanks.

*Carnations* in a cut state were charmingly shown by Messrs. W. Cuthbush and Sons, Highgate, and arranged with a little foliage in vases made quite a pleasing departure. There were some dozen or so kinds such as G. H. Crane, scarlet; Duchess of Portland, pink; Gov. Roosevelt, crimson; Glacier, pure white; Hon. H. Fellowes, rose-scarlet; Stella, white flaked scarlet; Harry Fenn, crimson; Novelty, yellow ground; Sir Hector McDonald, light striped, and others.

Single *Chrysanthemums* were prettily shown by G. Ferguson, Esq., Weybridge (gardener, Mr. F. W. Smith), the majority being seedlings raised by the exhibitor. Achilles, golden-bronze; Belle of Weybridge, chestnut-crimson; Lucius, bronze; Bellis, semi-double; and Lavinia, reddish chestnut, were among the good ones. Coloured foliage and berry-bearing plants strewn among the flowers assisted in the general display.

A group of *Epiphyllum delicatum* was shown by Messrs. William Bull and Sons, of Chelsea. This is the plant shown under the name *E. truncatum* Princess in November, 1898, when Messrs. Bull were awarded a first-class certificate for it. It has now been found to be a true species, and the name first mentioned having been bestowed upon it by the authorities at Kew, the plant will henceforth be so called.

From Mr. Edward Mawley, Rosebank, Berkhamsted, came a beautiful lot of garden Roses that, considering their lateness, were of exceptional merit. There were at least a dozen kinds; these included Hybrid Perpetuals, Teas, and Hybrid Teas, and were very much admired. Vote of thanks.

Messrs. Barr and Sons, Covent Garden, contributed hardy flowers, as *Aster Amellus* Framfield, *Iris stylosa*, *Schizostylis coccinea*, *Aster grandiflora*, together with bedding *Violas* and decorative *Chrysanthemums*. Varieties of *Lupinus polyphyllus* were also shown. A very interesting exhibit, also from Messrs. Barr, consisting of four cases of wax models of the flowers of Narcissi. Some fifty or more of the newest kinds were thus shown, and to say the flowers were perfectly represented is but doing them the merest justice. Only one opening was left for improvement, and that the addition of the foliage to each. This would certainly have enhanced the value of this wonderful collection.

#### CERTIFICATED PLANTS.

A first-class certificate was awarded to:—

*Jacobinia chrysostephana*.—This showy *Acanthad* was formerly described under the generic name of *Cyrtanthera*. It is brilliantly attractive, a fact which the group exhibited on Tuesday fully demonstrated. The bright orange-golden flowers, disposed in a terminal or clustered corymb and standing well above the leaves, produce a rich effect rarely seen so late in the year. The ovate-acuminate leaves are distinguished by the vivid colouring of the mid-rib and the nerves on the under surface. The plant is a comparatively recent introduction from Mexico, and is well suited to the general conditions of the warm greenhouse. As a decorative plant grown in small pots this *Justicia* should prove of great value. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea.

The following received an award of merit:—

*Begonia Agatha compacta*.—This dwarf and compact plant is derived from *B. socotrana* and *B. natalensis*, the last a small white-flowered kind with some resemblance to *B. Moonlight*. The present novelty as shown is only some 9 inches high, the mass of blossoms being of a warm rosy pink, very compact and sturdy. The foliage is somewhat similar to that of *B. Gloire de Lorraine*. Shown by Messrs. James Veitch and Sons, Limited, Chelsea.

*Chrysanthemum E. S. Vallis*.—A flower of the largest type and good build generally. The soft yellow tone is very pleasing and the gracefully drooping florets are elegantly arranged. Shown by Messrs. Wells and Co., Limited, Earlswood, Redhill.

*Chrysanthemum Lalia Filkins*.—This is a Japanese of large size with drooping florets. The colour is a soft silvery rose and very pleasing. The variety may not inaptly be described as a refined and improved *Viviani* Morel. Shown by Messrs. Wells and Co., Limited, Redhill.

*Chrysanthemum Belle of Weybridge*.—This was set up as a single kind, but it will not justly pass as such; as a decorative variety it is showy and good. The colour is warm bright crimson-red, and with the golden centre makes an unusually attractive flower. Exhibited by G. Ferguson, Esq., Weybridge (gardener, Mr. F. W. Smith).

*Chrysanthemum Miss E. Seward*.—A Japanese incurved, with the rich colouring of the old *Jardin des Plantes*, yet perhaps less rich. It is, however, of much merit from the colour point of view, and the flower is well built. Shown by Mr. W. Seward, Hanwell.

*Carnation Viscount Kitchener*.—A winter or tree-flowering variety, with large shapely white flowers, lightly yet freely striped with scarlet. The flowers are supported on good stems, and freely produced. They are also nicely scented. Shown by Messrs. William Cuthbush and Sons, Highgate, N.

#### WOOLTON GARDENERS' SOCIETY.

A MEETING of this society was held on the 6th inst. at the Mechanics' Institute, when Mr. T. Carling was voted to the chair. The subject for discussion was "Gardening: Past and Present," introduced by Mr. R. McHardy, who reviewed from early times the various fashions as they changed, with a notice of the many new introductions from various parts of the world. Many noted firms were mentioned who had done much by these means to enrich our gardens. A word of appreciation was also given to the many eminent hybridisers who had done much to increase the beauty and wealth of the vegetable kingdom. An interesting discussion followed, when the advantages of cheap glass structures well heated were compared with the difficulties our forefathers had to contend with. A cordial vote of thanks was tendered to the lecturer and chairman.



# THE GARDEN

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## ROSE SHOWS. IN AUTUMN.

**D**URING the past autumn the fortnightly meetings of the Royal Horticultural Society have shown that the Rose is a flower of the later months as well as June and July, when Rose displays are held throughout the United Kingdom. But it is surely possible for the National Rose Society to encourage the planting of Roses for autumn by holding an exhibition directly under its auspices in September, when we are assured of a keen competition in the Tea and Hybrid Tea divisions, and teach those who know not the value of the flower in autumn that its colouring is richer and the fragrance sweeter than in the sultry days of summer.

Letters reach us of the dulness and positive wearisomeness of exhibitions generally at the present day, and Chrysanthemums in rigid lines are becoming monotonous and depressing. Makers of schedules seem absolutely devoid of anything approaching originality, but frame their prize lists upon one apparently unalterable plan, till those who love the flower for its own sake visit the shows no longer, but seek the garden where bushes are heavy with bright bloom almost to the threshold of winter.

The Rose is a flower of autumn, and an exhibition by the National Rose Society will be helpful to those who are ignorant of the many varieties in full beauty at that season, when the flowers are dyed with richer colours and last longer than when gathered earlier in the year. Till a few days ago the garden of the writer was full of flowers; here Marie Van Houtte, more beautiful than in summer, there the glorious Caroline Testout, and many others, the shoots thick with buds and opening blooms.

A little path lined with Lavender and China Rose was a sunny spot one late October day when the Rose was bright with those fresh fragrant flowers which gave to many a garden of the past its sweetest beauty. This meeting of Lavender and monthly Rose is a delight to all who treasure simple yet beautiful English gardening, and when this old garden Rose is still gay many of the more recent varieties or hybrids offer countless flowers which are never more winsome than when bathed with the dew of an autumn morn.

The National Rose Society will make no false step when it institutes, modestly at first, an autumn competition, and the exhibits will

probably keep fresh and attractive throughout the day, owing to the greater substance of the petals in September and early October. There would probably be no difficulty whatever in holding the exhibition in the Drill Hall, Westminster; in fact, the show should be on similar lines to that of June.

We hope raisers of new Roses will strive to obtain climbing varieties that will last longer in beauty than the majority of those in existence at the present day. A blaze of colour for a few days is not satisfying, and it is sometimes lost unless watched for, one storm perhaps spoiling the picture, or through a brief absence from home the feast of flowers is missed.

Single Roses are with us for a brief time, the petals flutter to the ground, and, unless the Rose has an abundance of hips, withered leaves and gaunt stems are the reward for another twelve months. Wake up raisers and work in this direction, and in so doing confer a blessing on those to whom the Rose is the flower of flowers, whether as a climber, circling pergola or wreathing fence, or as a bush making splashes of colour in bed and border.

We are not insensible of the excellent work accomplished in the past by the National Rose Society. Its influence has been immense, its shows a pure delight; but by extending its work in the way indicated the value of the flower for autumn will be more widely recognised.

## THE HORTICULTURAL HALL PLANS.

WE have received several letters in reference to our remarks of last week, but we have no desire to open our columns to a discussion upon the subject. We do not, however, wish to hinder the progress of the Horticultural Hall in the slightest degree, and ask those who approve of its object to support the appeal of the Council for funds.

Our criticism was an honest one, and we are sorry that the design has been accepted. We agree with the words of one writer: "Every chance wasted and commonplace weakness everywhere;" but these words do not mean that we bear the Council ill-will, or have any desire to frustrate their plans now that the hall has been decided upon as the way to celebrate the centenary.

We may here mention that the building committee appointed to superintend the erection of the hall and to collect subscrip-

tions consists of Baron Schröder, chairman; Sir Trevor Lawrence, Bart., Messrs. J. Gurney Fowler, H. B. May, Martin R. Smith, A. W. Sutton, and H. J. Veitch, with the Rev. W. Wilks as secretary.

The appeal committee is composed of Mr. J. Gurney Fowler, chairman; Baron Schröder, Mr. H. J. Veitch, Mr. H. B. May, and Mr. G. J. Ingram, secretary.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

December 2.—National Chrysanthemum Society's exhibition at the Royal Aquarium (three days); National Chrysanthemum Society's floral committee meeting; National Amateur Gardeners' Association meets.

December 6.—Meeting of the Société Française d'Horticulture de Londres.

December 9.—Royal Horticultural Society's meeting, Drill Hall, Buckingham Gate.

December 11.—National Rose Society's annual general meeting and dinner, Hotel Windsor.

**Royal Horticultural Society.**—The last meeting of the above society this year will be held on Tuesday, December 9, in the Drill Hall, Buckingham Gate, Westminster, 1—4 p.m. An election of new Fellows will take place at three o'clock. At a general meeting held on Tuesday, the 18th inst., forty-four new Fellows were elected, amongst them being the Right Hon. Lord Hastings, the Right Hon. Lady Tweedmouth, Major F. G. Parsons, Major H. Terry, and Captain Hincks, making a total of 1,089 elected since the beginning of the present year.

**The proposed Horticultural Hall.** I do not wish to discuss the plans and elevations of the proposed hall in Vincent Square, because it is always difficult for a layman to criticise another's professional work; but I do not like the view of the hall as it looks on to Bell Street. Whatever may be its appearance when erected, on paper the elevation is singularly bald and even ugly. No doubt it will be pleaded that ornamentation costs money, but the design, apart from ornamentation, seems very poor. The heavy iron lattice girders supporting the hall roof seem to be ugly and quite uncalled for. Surely an architect accustomed to the erection of glass houses could have done far better. Why not copy the splendid light graceful roof of the old conservatory at South Kensington. The setting back of the frontage of the office is, I anticipate, compulsory; but I agree that the railings in front are needless, and may well be dispensed with. Generally, the windows, especially the lower ones, are too short, and give to the building too much the appearance of a warehouse. If some sort of porch or portico could be erected over the Bell Street or side entrance the appearance of the hall would be greatly improved. With respect to the superficial area of the hall, as compared with that of the James Street Drill Hall, the figures given with the plans issued to the Fellows show that the area of the new hall will be 10,650 square feet, and the annexes each of 1,128 feet area, added, will make a total of 12,906, or very nearly 13,000 superficial



feet. The Drill Hall has an area of about 7,000 feet, so that the new hall and adjuncts will furnish space fully three-fourths more than the Drill Hall now does. That is a great gain. If, as seems the purpose, the committees are to sit elsewhere, then the available space for staging will be practically double the existing show space. It does not follow that the new hall could accommodate the Temple, Rose, or Chrysanthemum Shows, and probably never will be required to do so; but for all ordinary purposes it will be an immense advance over the existing one.—A. DEAN.

**Berkshire school gardens.**—In March of the current year school gardens were established in a number of villages in Berkshire, and, despite a rather unfavourable year from a weather point of view, these have all proved a signal success. There was a keen competition for the prizes offered for the best gardens by the technical education committee of the Berks County Council. The judge's ruling resulted in the first prize going to Aldermaston, the second to Ardington, and the third to Faringdon. Mr. Keyser kindly entertained the boys of Aldermaston to tea on the evening of the 17th inst., when the prizes were presented by Mrs. Keyser. Each of the prize-winners was greeted with a few cheery words of welcome and encouragement. Both Mr. and Mrs. Keyser take the greatest interest in the movement, which, assisted by such practical encouragement, bids fair to develop considerably in the near future.

**National Dahlia Society.**—The annual meeting will take place at the Hotel Windsor on December 16. The exhibition next year will be held on September 1 and 2, in the Drill Hall, Westminster. There will be a conference on the judging of Cactus Dahlias on the afternoon of the first day. Lord Ilchester has kindly consented to become a patron of the society.

**Plums in November and December.**—In the northern portion of the kingdom there is no difficulty whatever in having late Plums, and I refer to both cooking and dessert varieties. I will note the value of the dessert first, and though the variety is an old one it is most valuable. This is Coe's Golden Drop, and gathered late from an east or north wall the fruits stored in a cool drawer or on shelves keep sound well into the season named. Doubtless the best system to secure the fruits as late as possible is to allow them to hang on the trees into November if the season is mild. Of course this refers to the north, but even in the south the same advice holds good as regards late gathering and cool storage. A new Plum exhibited recently by Mr. Messenger is small but sweeter and richer than Coe's; it will, I think, prove a most valuable Plum for use at this season. The cooking Plum referred to is the Wyedale, and though as regards quality it cannot be compared to the first-named varieties, as a cooking fruit in November it is most profitable. It hangs on the trees till November, and given cool storage keeps well a month later. It is a very hardy variety, and invaluable for growers where fruits in variety are required as late as possible. In addition, the tree makes a free growth and rarely fails to crop. Owing to its late flowering it bears most freely as a standard form, and is not particular as to soil or locality.—A. C. N.

**Japanese Iris failing.**—I think that the non-success of Japanese Iris mentioned by Lady Gordon-Lennox in those interesting "Winter Schemes for Summer Colouring," reproduced from *Country Life*, can be summed up in "want of powerful sunshine." Our climate here in South Devon seems to match mid-Japan, where Iris *Kämpferi* seems to be most cultivated. From the time the foliage first starts into strong growth till it is beginning to wither we get, in an average year, four months uninterrupted sunshine, powerful enough to ripen the fruits of *Euonymus japonicus*, Sweet Bay, Magnolia, Camellia, and Cherry Laurel. The water gets so warm that the gold fish lie panting on the surface (they are as hardy here as their cousins the pond carp, and are always unprotected in the winter); even to walk across turf at midday makes the foot hot through the sole of the shoe.

I have felt the surface of the soil when it was warmer than the bare palm of the hand cared for. Given enough water at the roots by irrigation it is to be wondered at that we get flowers 9 inches across, and that the clumps are as thriving as German Iris? I really believe that, speaking generally, all Japanese plants dislike lime. Given perfect conditions they may put up with it, but that is about all; the difference in Bamboos shows this. My soil totally lacks both lime and moisture, yet the Bamboos flourish like Pampas Grass. Two years following, *Arundinaria Simoni variegata* has flowered freely, last year setting good seed. This year has been too cold to ripen it. I think no amount of good cultivation will make these thrive in the pale northern sunshine. They must have much moisture, and this, of necessity, is cold. It is like the Cushion Irises here. These are really at home and steadily increase, without any more care than Iris *stylosa* gets, which is—none. A plant like *Gerbera Jamesoni* can be managed in a trying climate, as it only wants one thing—viz., heat; but Iris *Kämpferi* wants this and warm mud—an almost impossible thing in the north. They flower the first year, because "needs must," the future flower being set under Japanese sky.—A. BAYLTON, *Dartlish, Devon*.

#### **Fruit at Cambridge autumn show.**

—The fruit at the recent autumn show of the Cambridge Horticultural Society was so fine in colour and quality that it deserves more than passing notice on account of the great strides that have been made in the Eastern Counties during the last few years. Though the very fine exhibit of Mr. G. Woodward was absent this season, owing to the hailstorm in September, which we are all grieved about, there were some very fine local exhibits at this show, and certain varieties were very conspicuous. The many dishes of Peasgood's Nonsuch were remarkable for their finish. The same remark applies to Lae's Prince Albert; the fruits were beautifully coloured, more like highly coloured Cellini Pippin than anything else. In all the fruit classes there was a strong competition, and scarcely a weak dish. Newton Wonder and others were splendid, and some half-bushel baskets of Cox's Orange and King of the Pippins were the finest lot I have seen staged; the latter were remarkable for their perfect shape and colour. The Pear and Grape classes were crowded with really first-rate fruit, the difficulty being to pick out defects. It is quite refreshing to see such grand fruit staged.—G. WYTHES.

#### **Hampshire County Council Farm School.**

—This school, which is at Basing, about two miles from Basingstoke Station, has just issued a most comprehensive syllabus. Instruction is given in agriculture, horticulture, elementary physics, chemistry, plant physiology, weather observations, poultry, bee keeping, dairying, &c. Students are accommodated in the farmhouse and hostel. Mr. D. J. Cowan is director of technical education, Mr. J. C. Newsham is head master, and from him a prospectus and other details may be had.

**November Roses.**—The Rose garden at Madresfield Court presented a wonderful sight on the 20th inst., so great was the profusion of bloom. Three varieties completely outshone all the rest, these being Grand Duc Adolphe de Luxembourg, G. Nabonnand, and Perle des Rouges. I shall not easily forget the exquisite effect produced by the first-named, with its rich dual colouring and shell-shaped petals. Attention has frequently been drawn to it, and also to the fact that the National Rose Society have completely ignored it in their list of the best twenty-four bedding Roses. Many of your readers will probably not dissent from me if I place it amongst the best twelve for bedding purposes. Perle des Rouges is certainly another Rose which should be included in this list of bedding varieties, and I am glad that attention was recently drawn to it by Messrs. Bunyard.—A. GOODWIN.

**Galtonia candicans.**—With reference to the illustration of *Galtonia candicans* in our last issue, Mrs. Clara Myers writes from Dunningwell, Milloom, *via* Carnforth: "I am very glad you were able to print the photograph of *Galtonia candicans*

I sent you the other day. We planted the bulbs at the same time as the *Gladiolus cornus* were put in, and they lasted in flower several weeks, coming in very useful for our many harvest thanksgiving services in September and October. The bulbs will be lifted and stored till next spring for fear of severe frost, though I believe many gardeners leave them always in the ground."

#### **Nerine Fothergilli and Canarina campanulata.**

—Ten years ago I purchased a single medium-sized bulb of this *Nerine*, and from it have now accumulated a stock of over sixty bulbs, besides having given away some twenty or thirty to friends. But until this autumn I have never had a single flower, nor have my friends been more successful. I was delighted, therefore, when at last four bulbs sent up their spikes and bloomed gloriously. I had begun to despair of success, though I was aware that it was by no means an easy matter to "do" these *Nerines* well; now, however, having at last broken the spell, I hope for still better results in future. Briefly speaking, the amended treatment has consisted in thoroughly well "baking" the bulbs in their pots on the hottest available shelf in the greenhouse all the summer, and I believe that if we had been favoured with a little more sunshine this year I should have done better. I grow the bulbs three in a 4½-inch pot, carefully repotting them late in the autumn in fresh soil, though I cannot say whether this is the correct treatment or not. They practically live on the greenhouse shelf all the year round. *Apropos* of the baking process, I may mention that my *Canarina campanulata*, about which I wrote a short note in THE GARDEN some time ago, is again going to flower, though only to the extent of a couple of blooms. It was baked like the *Nerines*, and would doubtless have stood a lot more "cooking" with advantage. I think it must have started growth prematurely; the stems are now 2 feet high, and the buds likely to open in a few days' time, though it is in quite a cool house.—S. G. R., *Yalding*.

**Grape Alnwick Seedling.**—Very good results have followed the use of this variety as a stock for Black Hamburg and Foster's Seedling by Mr. Edwards, Wentworth House Gardens, Mill Hill, N. I noticed recently that the foliage was unusually vigorous, and on enquiring the cause found it to be attributed to the stock upon which the Vines were grafted. More than one good grower has remarked on the size of berries, as also the vigour of these Vines, far ahead of those on their own roots. This fact is of interest to all Vine growers, for anything that will "raise" the standard of our Black Hamburg is a step in the right direction.—STEPHEN CASTLE.

#### **Autumn bloom of Auriculas and Primroses.**

—The *Primula*-like habit of autumn blooms in the Auricula and Polyanthus is seen to be asserting itself this season, probably owing to the cool moist growing weather. Strongly-grown Alpine Auriculas are frequently prone to flower in the autumn, and some are throwing up very strong trusses. Autumn bloom is not always a test of true character, therefore it is best to pinch out the trusses of bloom so that the full strength of the plant may go to the future spring flowers.—R. D.

#### **Lathyrus latifolius albus grandiflorus.**

—This very fine novelty was distributed this year for the first time by Hobbies and Co., Limited (John Green), Norfolk Nurseries, Dereham. It is a very vigorous-growing white Everlasting Pae. The flowers, which are of large size and great substance, are produced in immense spikes. A few days since I was in the nursery at Dereham, and saw in a glass-roofed corridor a plant of this superb variety, which has produced spikes of blossom of startling size. For cutting for floral decorations it is invaluable, but a newly-planted specimen needs two seasons to become thoroughly established to enable it to demonstrate its real character. Mr. Green stated that he had secured a rose-coloured variety of equal size and quality to the white, and which it is anticipated will form an admirable companion to it; but as the stock is very limited it cannot be distributed for a year or two.—R. D.



**A note from Finland.**—On page 305 of THE GARDEN a correspondent says he picked a Strawberry weighing 1½oz. I think this is nothing remarkable, as last summer I picked here, in our unfavourable climate, a Royal Sovereign Strawberry that weighed fully 62gr., i.e., approximately 2oz. (1oz. = 31·103gr.). My plants were not given special cultivation, neither were the fruits thinned out. It would be very interesting to hear from other Strawberry cultivators upon this subject.—C. A. COLLIN, *Villa Turvala, Kotka, Finland, November 9.*

**Humea elegans poisonous.**—In the *Lancet* Dr. Hearnden reports that the contact by rubbing of the different parts of *Humea elegans* upon the skin causes severe and prolonged itching, often followed by vesicular eruptions or by inflammation. No doubt the notoriety of *Primula obconica*, with which analogous experiments were made between 1894 and 1896, will be remembered. The phenomena of irritation appear to be the same. We are acquainted with gardeners who cultivate *Humea elegans* as well as *Primula obconica*, and yet we have never seen their skins injured by contact with these plants. Nevertheless, the cases of poisoning mentioned are real, and the testimony of the sufferers is undeniable. It must, therefore, *à priori*, be inferred that the touch of *Humea elegans*, like that of *Primula obconica*, is to be feared by those who are predisposed to skin diseases.—*Le Jardin.*

**Miniature Chrysanthemums.**—During the first fortnight of April cuttings having at their extremity a crown bud are selected. These are placed in small pots filled with soil which has been prepared during the winter, to which one-third of white sand is added. The cuttings are placed on an old hot-bed and kept under glass until they strike root, when they are repotted into larger pots. These tiny plants, bearing, in proportion to their size, enormously large flowers, are of great use for the adornment of flower-stands, &c. The organ of the Société Centrale d'Horticulture du Nord, which mentions this process, adds that Chrysanthemums so remarkable for their original flowering lend themselves to any method of culture.—*Bulletin d'Arboriculture.*

**Apple Coronation.**—This is a welcome addition to the list of first-rate dessert Apples, and well merited the distinction of an award of merit made by the fruit committee of the Royal Horticultural Society on October 21 last. The tree is of compact habit and of medium growth; the fruit is fairly large, and may be described as flattish round. At first the skin is green, changing as the fruit matures to a pale yellow on the shaded side, while that exposed to the sun becomes mottled and streaked with red as the fruit ripens; eye open, and set rather deeply in a round depression; stalk straight and very slender, measuring three-quarters of an inch to an inch in length; this is set in a smooth, rather deep cavity. For table use from November to Christmas there should be a good future for this new Apple. It is of first-rate quality and excellent flavour, which reminds one of Cox's Orange Pippin, and is probably accounted for by reason of the fact that this variety was one of the parents. Apple Coronation was raised at Buxted, and was exhibited by Mr. H. C. Prinsep, of Buxted Park Gardens. The entire stock has been acquired by Mr. G. Pyne, Denver's Nurseries, Topsham, Devon, who is sending it out under the name mentioned above.—C. A. H.

**A hint for florists.**—A florist who has a shop at Cologne has had the happy idea of attracting the attention of the passers-by to his show of flowers and plants by the aid of a proceeding as ingenious in itself as it is good for the plants and flowers. This idea he has realised by making a thin stream of water flow from the top and down the inside of his shop window; the water spreads and descends over the whole surface of the glass like an extremely fine sheet. The undulations, ceaselessly changing and constantly renewed, which the sheet of water produces, considerably dim the clearness of the view of the flowers on show inside, but do not prevent one from recognising them and admiring their freshness.

These undulations produce a new and charming effect, which attracts and fixes the attention of flower-lovers, whilst the evaporation, which naturally is considerable on account of the large surface of the glass, keeps the air moist, to the very great benefit of the plants and cut flowers. The installation of this curious process is very simple. A perfectly horizontal gutter placed at the top of the glass receives a stream of water, which it pours out along its whole length upon the face of the glass. A similar gutter placed at the bottom receives the water, and in its turn empties it into a waste-pipe. The fixing of the apparatus costs but little, and the loss of water is very small. There may perhaps be an idea in this which may be useful to some florist—at any rate we have thought it interesting to point out its ingenuity.—*Revue Horticole.*

**Saxifraga Fortunei**, perhaps because it blooms at a time when flowers are few and far between, always seems to me to be the equal, if not the superior, of any of the family. I have just cut from one small plant a lovely spray of its prettily shaped flowers. I find it quite hardly provided it is planted in a shady moist spot. I have the shade in a north border, and so give the necessary moisture; I bury some large smooth stones round it, which seem to keep the desired condition about its roots. Some years ago there was a fine illustration of it in THE GARDEN, which induced me to acquire it. This shows well another handsome feature, viz., the high colour taken on by the stems and leaf-stalks.—T. J. WEAVER, *Thirlwood.*

**Alstroemeria aurea.**—A good form of this, or of *A. aurantiaca*, which latter name distinguishes the deeper-coloured flower, is a most desirable plant. It grows freely with me in an ordinary border of deep soil. It is best planted in spring, placing the fleshy roots some 9 inches below the surface. It may not bloom the first year, unless strong clumps are procured, but after it has once settled down no plant blooms with more certainty. All it requires is a stake or two round the clump to keep it from being blown about. The heads of bright flowers are fine for cutting, and last well in water. I find self-sown seedlings bloom the second year. But to form new clumps I save a few seeds every autumn, sowing them at once in a pot and keeping them moist all the winter in a greenhouse. In the spring the seedlings come up freely; then I plant them bodily out once for all.—T. J. WEAVER, *Thirlwood.*

**Malmaison Carnations.**—I observe in your issue of the 15th inst., in acknowledging some blooms of Malmaison Carnations for the Editor's table from Lady Tweedmouth, Guisachan, Beaulieu, N.B., you mention that her ladyship writes, in an accompanying note, that "the plants at present are one mass of bloom, and are likely to continue for some time to come." It is, I think, rather unusual to have Malmaison Carnations in bloom in quantity at this season, and I am sure it would be interesting to many of your readers if Lady Tweedmouth or her gardener would kindly give a few notes as to the method of culture adopted to have Malmaison Carnations in bloom at this time. These lovely Carnations are not grown so much in Scotland as in England, as they are usually in flower during the months of the London season, and are almost over by the beginning of August, when the Scotch season begins. If they could be depended on to bloom during October and November, I for one would be glad to give more space and attention to them, as they would be most useful for house decoration when outdoor flowers are scarce.—D. M., *Scotland.*

**Leonotis dubia.**—Between three and four years ago seeds of this plant were sent to Kew by Mr. Mahon from British Central Africa, and it has flowered during late autumn and early winter each year since. In general appearance it bears a close resemblance to a *Salvia*, being of the same semi-woody, semi-herbaceous nature, while the foliage and flowers are also *Salvia*-like. The leaves are thin in texture and ovate, the larger ones being 4 inches to 5 inches long. The flowers are ½ inch long, of a tawny-orange colour, and borne in dense whorls usually from alternate nodes on the upper

part of each branch. As a rule good inflorescences contain about one hundred flowers, which when fully expanded have the appearance of a tawny-coloured ball. When grown in pots it requires much the same treatment as that given to *Salvia splendens*, stopping the plants frequently while young. When planted out it makes a much larger plant than when grown in a pot, a plant which was grown in a border in the Mexican house two years ago having attained a height of 8 feet, with a diameter of from 4 feet to 5 feet. Where variety in the greenhouse is wanted a few specimens of this curious and interesting subject would be serviceable.—W. D.

**Grape Black Alicante.**—It is interesting to learn that in Scotland this fine late Grape is so difficult to grow, whilst in the south it is the very best amateur's late Grape, because so easy of culture. Mr. Owen Thomas has made it clear that to market growers it is not only an easy Grape, but is most profitable. The amateur is not at all a talented Grape grower, as the market grower usually is, but in any case he often does Alicante very well. Not only has it a good constitution, but it sets its flowers freely, and ragged bunches are rarely seen. One evidence of its easy culture is that really good fruit of it can be purchased at from 9d. to 1s. per lb. retail, home grown. This is a poor price for the grower, but he gets compensation because of the great crops produced. Amateur growers cannot do better than grow for early purposes Black Hamburg, and for late Alicante. The latter may not be the best flavoured, but on a well-drained border, with ample sunlight and air, the berries are really good and agreeable eating.—A. DEAN.

## THE FERN GARDEN.

### DECIDUOUS HARDY FERNs.

**F**ERNs which are natives of cold and temperate climates, in which the conditions of the winter are so rigorous that the frondage is practically destroyed, have developed in large measure the same deciduous or leaf-shedding character as is possessed by the majority of trees. Comparatively few, however, have developed the same capacity of throwing off their fronds at a basal joint, and among our native Ferns only one, *Polypodium vulgare*, or the common Polypody, has this faculty, which, moreover, does not show itself at the usual leaf-shedding season, the autumn, but only in the spring, when the new fronds are rising to replace the old, and consequently monopolise the root action. In the other species, which are deciduous, the fronds in October or November, or even earlier in some cases, commence without any obvious reason to lose their fresh green tints and become first yellow and finally brown, shrivelling eventually to feather-weight *débris*, owing to the retraction of their sap and any contained nourishment into the crown or root-stock. To many people who do not understand this provision of Nature for a thorough rest, the change is imputed to bad health, and the final disappearance or death of the fronds is thought to mean the death of the Fern, the result being subsequent neglect, which makes worse the error. It has so frequently happened in our own experience, especially with lady friends to whom we have given some of our seedlings, that their subsequent loss has been owing to a mysterious disease in the autumn, though every care was taken, that we deem a word of warning not to be out of place in this connexion at this season. Losses occur, however, even with those who understand this phenomenon, for where Ferns are grown in pots in conservatories the absence of any obvious plant for some months is all too apt to lead to those pots being placed out of sight in favour of more presentable occupants, the result being that they are forgotten, left altogether unwatered, and thus either perish outright or are greatly weakened by the drought to which they have been unnaturally subjected.



In their natural habitats the sleeping Ferns are saturated through the winter beneath a thick blanket of fallen leaves, and there is no doubt that, as with bulbs, the roots are at work preparing for the spring growth long before the centres of growth show any signs of activity. Hence one essential to the well-being of Ferns is that they be kept moist throughout the winter, and a good plan is either to pack the pots in a frame with cocoanut fibre or to bury them to their edges in the garden, and mulch them well with dead leaves, thus imitating as far as possible the natural conditions of existence in the dormant period. Our native Ferns belong really to three categories, due probably to our comparatively mild winter climate. Thus in the Lady Ferns, Bladder Ferns, Oak and Beech Ferns, Mountain Lastrea, Marsh Fern, and Royal Fern we have a class which, however we may treat them, die down altogether in the autumn. Then we have an intermediate section, represented by the Soft Male Fern and Broad Buckler Fern, which only drop their fronds to the ground, but under shelter retain their greenness. Finally, in the Hard Male Fern, the Spleenworts, the Hart's-tongue, the Shield Ferns, and Blechnum we have thorough evergreens, the fronds of which are retained well into the subsequent season. In making and arranging Fern collections it is therefore well to bear these peculiarities in mind, especially with planted out Ferns, but of course when grown in pots readjustment in the winter is possible, so as to give good effect even in the dead season. The moral of this note is, however, that dying fronds do not necessarily mean dying Ferns at this period of the year, but that due precautions must be taken as regards watering to ensure that sleep does not culminate in death.

CHAS. T. DRURY, F.L.S., V.M.H.

#### FERNS AT FOOT OF NORTH WALL.

A NORTH wall is very often the cause of great perplexity to gardeners. Often they are at such a loss to know what to plant either upon it, against it, or at the foot of it, that they finally plant nothing at all. Those who have a wall facing north which now is bare may be able to obtain a welcome suggestion from our illustration. Hardy Ferns are sadly neglected in gardens, yet in many positions they are invaluable, and particularly in such an one as is provided by the shelter of a wall facing north. There they enjoy both the shade and moisture which are so essential to their well-being. The Hart's-tongue Fern especially would seem to be at home under such conditions.

#### CERES, CAPE COLONY.

##### THE WHITE WATSONIA, DISA, AND OTHER PLANTS.

CERES is a neighbouring valley to Tulbagh, and no doubt the flora is much the same, but admitted to be not quite so rich, its mountains are more rugged, and there is a large succulent vegetation at Tulbagh. *Disa grandiflora* is plentiful on the sides of the mountain streams, and so no doubt are other species of *Disa* on the dry ground the same as on Table Mountain. Not being as nimble as I was when searching Spain for Daffodils to confirm, or otherwise, the ancient writers on Daffodils, my search was confined to the rocky foothills, but I was assured on excellent authority in the valley that the flora up the mountains was rich. I advise botanical collectors to call upon Mr. Brett, who takes the greatest interest in the flowers of this valley. He is an old resident, and when proprietor of the Ceres Sanatorium entertained many Englishmen of note, Froude the historian amongst others. He has preserved his guest book, and is proud to show it to anyone curious in such matters.

The valley is entered through a narrow pass known as Ceres Road, and in the rocky part of this the botanist would do well to begin his search. I visited Ceres early in September, and was just a month too early; nevertheless, I found many bulbous plants of interest. The farmers here, as at Tulbagh, are all well-to-do. One of them has an ostrich farm. This I visited and had coffee, and found the sons smart, well-educated youths, and very polite. The Oranges here are of excellent quality, and the land was being prepared for extensive Orange growing. The ground is trenched to a depth of some 4 feet, several quarters had been planted, and this work of trenching and planting was intended to be proceeded with as quickly as labour could be commanded. Cape Town and the Transvaal would be the great

markets to begin with, and should these markets be overstocked London would form a third outlet, but that will be some years hence. Ceres is on the main line from Cape Town to the Transvaal. The valley is some fifteen miles in each direction. The Cape rebels were on the watch to get in to rout the loyalists, so that a strong military force was needed to hold the place, and there were many blockhouses scattered about, some of stone and others of galvanised iron. The latter were so constructed that a space was left between the inner and outer wall, which was filled with sand and loop-holed, as it was found that shot could not penetrate the sand. Then there were forts made with sand-bags to protect the soldiers from the bullets of the enemy should they pass over the mountains. The population of the Ceres Valley numbers 800 to 900. Of this number, I was told, 300 were known to be loyal, and when the inhabitants were called to form the town guard only about thirty responded.

##### DISA GRANDIFLORA.

Few of our gardeners at home succeed in growing *Disa grandiflora* successfully. Mr. Ayres, nurseryman, of Cape Town, on one of his visits to England paid a visit to Dr. Wallace at Colchester, and there saw *D. grandiflora* flowering finer than he had ever



FERNS AT FOOT OF WALL FACING NORTH.

seen it on Table Mountain. It was in pans on a shelf close to the glass in an old lean-to house with many broken panes of glass, and Mr. Ayres attributed the success to the free circulation of air and the cool treatment. Such are the conditions that prevail where this plant grows at its high elevation, where snow is common and biting winds prevail, accompanied by showers of hail during the Cape winter. At one time it was thought that Table Mountain had the exclusive monopoly of *Disa grandiflora*. Now it is found on all the mountains in the western part of Cape Colony where there are streams. In such places the plant is found in abundance, and a plentiful supply can be obtained if there is a demand, which at present is small. It is only a question of collectors going further afield for the bulbs. In making the second reservoir on Table Mountain the principal habitat of *D. grandiflora* was destroyed, and the authorities of Cape Town are doing their best to

##### PRESERVE THE NATIVE FLORA OF TABLE MOUNTAIN,

and especially the preservation of the *Disa* and *Nerine*; nevertheless, the annual destruction is great. Sackfuls of *Nerines* are removed by collectors for export to Europe in collections of Cape bulbs. This has gone on merrily



during the military occupation, many officers being commissioned by their friends to send or take home Cape bulbs; such collections are made up from 5s. to £20. Botanists and scientific men are never refused permits to roam about Table Mountain. Formerly anyone could get a permit; now this has been withdrawn. There are still those who risk the chance of being prosecuted. There is an artist who spends every Sunday—rain or no rain—on the mountain. The other Sunday evening I met him on the tramcar with as many *Ericas* as he could hold between his two arms. I told him he should be sent to prison, but he only laughed, saying, "I break off the flowers, but do not pull up the roots." Still, destruction has been going on for so many years that the flora of Table Mountain, its gorges and slopes, is not so rich as in the days of the good and devoted botanist Mr. Harvey, to whom we are indebted for the conception of that grand work "*Flora Capensis*," and which is being followed up by the enthusiastic Mr. Bolus.

#### THE WHITE WATSONIA

has been to me a study of some considerable interest, and I now give the result of my researches into its history, as gathered from the man who found the first one. On my way up the coast the steamship *Norman* put in at Port Elizabeth (Algoa Bay) to discharge cargo. On landing, my first visit was to Mr. Nosworthy, a produce merchant and commission agent, to whom I introduced myself, and as near as possible I offer to the readers of *THE GARDEN* his account of the finding, &c. "As a boy I was in the employment of Mr. Upjoin, a botanist of Rondebosch, and went out with the coloured boys to collect bulbs for him to ship to Europe, and to cultivate in his garden. At that time Prince Alfred paid a visit to Cape Town, and from thence to Simon's Town drove along with Governor Gray. Along the route triumphal arches were erected, the one at Rondebosch was in the hands of Mr. Upjoin to erect, and along with the coloured boys I was sent out to collect flowers on the slopes of Table Mountain. Going up an old deserted Dutch avenue I saw a white *Watsonia*, and thought it would look well in the crown which was to form part of the arch. On my return Mr. Upjoin noticing I asked me where I got it. I told him, and he asked me if I thought I could find the bulb. I said I was sure I could, and off I was at once dispatched. On returning, Mr. Upjoin tried to fit the plant with the cut spike, and said they did not fit. I then told him I had cut a piece off the stalk, and was certain I had brought the bulb. 'Then, lad,' said Mr. Upjoin, 'plant the bulb, and if it flowers white I'll give thee ten shillings, and if not will give thee a towse on the head.' The second year it flowered, and with a considerable increase. I got the ten shillings. I had planted the bulb beside a fine specimen of a white *Camellia*, and Mr. Upjoin asked why I had chosen this spot, and I said white against white. After that I do not know what became of the bulbs, for soon after this I left for Port Elizabeth. At that time Mr. McGibbon was curator of the Botanic Gardens of Cape Town, and he and Mr. Upjoin were great friends, and I suppose he must have given Mr. McGibbon some of the bulbs." When Mr. Chalwin, the present curator, took over the charge of the Botanic Gardens, now the Municipal Gardens, he found some pots of the white *Watsonia*. Mr. Templeman, formerly seedsman to the Botanic Gardens, had started a business of his own, and asked Mr. Chalwin for a pot of the white *Watsonia*.

Shortly afterwards there was a great flower

show at Port Elizabeth, and Mr. Templeman exhibited a collection of Cape bulbs. Mr. Wilson being then curator was very kind to Mr. Templeman, and as a recognition for his kindness put his collection at Mr. Wilson's disposal, who answered, "If you can spare a bulb of the white *Watsonia* I desire no more." "Take them all," said Mr. Templeman, but Mr. Wilson declined to accept more than two bulbs. About this time Lord Brassey called in with his yacht at Port Elizabeth. Seeing the white *Watsonia* in flower he desired to purchase bulbs, but Mr. Wilson refused to sell, referring him to Mr. Templeman at Cape Town. At first Mr. Templeman refused to sell; but Lord Brassey said he must have some bulbs. "Then," said Mr. Templeman, "you will have to pay a fancy price; I want a pound a bulb." Lord Brassey bought two, and said if the price had been double he would have possessed them. The exact year I failed to find out, but the Harbours of Cape Town thinks it must have been 1894 when Lord Brassey was there in his yacht, this being the earliest sale I have been able to trace. In cultivation the bulb increases rapidly in the Southern Hemisphere, and thus Mr. Wilson soon had a sufficient stock to consign some bulbs to Mr. James O'Brien, who distributed them under the name *W. O'Brieni*.

Mr. Arderne, The Hill, Claremont, was on a shooting excursion at Worcester, and one of his party brought in an armful of *Watsonia rosea*, amongst which was one with a white flower. The party retraced their steps, and Mr. Arderne was able to match the cut spike with the plant. The bulb he lifted he took home, planted it, and soon had a good many bulbs. These he exchanged with Mr. Sander of St. Albans for Orchids, &c., and under the name *W. Ardernei* it is known in cultivation. The third find was at Ceres Road. All I could trace about it was from parties who had received bulbs from gardens there. That it is an albino of *W. rosea* there is no doubt. There should be no difficulty in growing this fine plant in England in pots. Several in a pot would look well in a conservatory or brought forward in a cold frame and planted out early in June. When in growth they enjoy a free supply of water and as much sun as can be given to them. Like the *Gladiolus*, cut spikes open indoors. This white *Watsonia* is a great feature in the Municipal Gardens at Cape Town during the month of October and later. Returning to the Rondebosch arch made by Mr. Upjoin, associated with the crown were some Oranges, and over the crown an inscrip-

tion: "Take one Orange, then another, six for father, twelve for mother." Governor Gray cut down the crown and secured the Oranges.

PETER BARR, V.M.H.

Cape Town, South Africa.

## NOTES ON HARDY PLANTS

### A FIELD OF CROCUSES.

SUCH an illustration as the accompanying one, of Crocuses growing in a Berkshire park, brings to mind the great possibilities of bulbs naturalised in the wild parts of the garden and pleasure ground. Such things as Crocuses, of course, must be planted in large numbers, close together, and over a fair extent of ground to produce the best results. They seem to thrive particularly well beneath large trees; this our illustration would seem to prove, although we have often mentioned the fact.

### GERANIUM STRIATUM.

THE true *Geraniums*, generally hardy flowers in our climate, have been rather neglected in many gardens, although they do not deserve to be overlooked by those adding to their flower borders. One old but very pretty and also free-flowering one is *G. striatum*, a South European species, which was known so long ago as 1629. It was Parkinson's "Variable Striped Cranesbill," and, besides other references, was figured in the *Botanical Magazine*, tab. 55. The illustration in the latter work is, however, not so flattering to the flower as it deserves, though in its main



CROCUSES IN A BERKSHIRE PARK.



characters it is well represented. The colouring also slightly exaggerates the brownish spot at the corners of the divisions of the leaves, though this is readily observed in the greater number of the leaves. Be this as it may, the Striped Cranesbill is a very neat plant, with white flowers prettily netted with red veins, and looking quite attractive when seen in a shaded border, which is the position preferred by the plant. It is of rather trailing habit, and would be a good thing for large rock-work or for a border partially shaded with trees, for which position we have not a superfluity of flowering plants. *G. striatum* is not so aggressive in its growth as some of its congeners, and seems to thrive well in any common soil. It comes into bloom in May or June and continues in flower for several months. It was still flowering when this note was written (November 8). S. ARNOTT.

#### ZAUSCHNERIA CALIFORNICA.

REGARDING "S. W. F.'s" remarks upon this lovely plant in *THE GARDEN* of the 8th inst., I may remark that I think there is every probability that your correspondent has previously had the early-flowering form of this plant, and that the one he procured this year is the later one. The latter has more tomentose leaves. I may say that the earlier *Zauschneria* is still giving a few flowers here; but the other, though there are buds visible this season, as well as in others, has never bloomed, although tried in the warmest positions available. The early one has brighter green foliage, which is, if anything, rather blunter and more rounded than that of the later.

*Carsethorn, by Dumfries, N.B.* S. ARNOTT.

### THE ROCK GARDEN.

#### ROCK GARDEN - MAKING.

##### III.—THE BEST STONE TO USE.

THE question of stones is important in the making of rock gardens, and much depends on a good selection. To use two or three different kinds for the same work—as is often done—is, I consider, a huge mistake. There is no reason why rock gardens made of different materials should not occupy different parts of the garden, if

it be sufficiently large. For instance, we may have a limestone rockery in one part, and, say, a granite rockwork in another, but to mix them is not advisable, as it would be unnatural. To my mind the most unsuitable of all kinds of stones for rock building are bits of glaring white spar or other gaudy stones covered with glassy crystals or of a general vitreous appearance. Owners of quarries generally put aside these pieces and usually sell them to would-be rock builders under the name of "fancy rockery." For convenience of easy handling these stones are generally broken up into pieces of almost uniform size, i.e., about 1 foot to 2 feet in length. For a collection of minerals these pretty crystals may be well enough, but they should never be used for rock building, except perhaps when crushed or broken into small fragments to mix with the soil for such alpine as love a gritty medium to grow in. They are the delight of such masons and jobbing gardeners whose ideas of rock building can never advance beyond the pudding-shaped heaps of soil studded all over and at regular intervals with these uniform bits of glaring spar or crystals. Such creations may still find admirers in the shape of amateurs without horticultural knowledge, whose only garden is a tiny plot in front of a small villa. But to people whose taste has been refined by the study of Nature the "loud" appearance of such stones is repulsively vulgar. Why? Because it is unnatural! In Nature we may find such material in the interior of caves or in hidden crevices, but never on the surface. And as we are—or should be—imitating Nature when building artificial rocks, the beauty of our garden must, under all circumstances, depend on its appearing true to Nature, the artistic grouping and blending of rocks and plants, and the picturesque effect as a whole, but never should it depend on the gorgeous colouring or staring crystals of individual stones.

The same objection, though in a less degree, may be raised against stones of a very new appearance. They are, as a rule, too gaudy or too conspicuous to impart to the rockwork that natural appearance which pleases the eye. Sometimes, however, newly-quarried stones show a sombre tint of red or brown, and the new-looking grey, white, or bluish surfaces are visible only where the break occurred during blasting operations. Such stones as a rule are easily managed, for all that is necessary would be to place the new-looking surfaces

inward, i.e., where they might be covered either by soil or other stones, so that only the older looking surfaces would show. This applies more especially to the various kinds of limestone.

Sometimes it happens that the estate on which a rock garden is to be constructed contains one or more quarry pits where stones might be obtained, and in most cases it would be far better to use what can be had on the spot rather than buy expensive material from a distance. If an old disused quarry is available as a site for a rock garden it would be a double advantage, as the old quarry itself might easily be made into a most picturesque rock garden. All that would be necessary would be to conduct the blasting operations in such a manner as to obtain a good lot of boulders. It often happens that these fall naturally into positions far more natural than they would do by any amount of careful fixing, so that many of them might be left where they fell, while others might be so arranged as to give the whole quarry pit the appearance of well broken natural scenery.

Very often such natural advantages as a quarry pit would afford are out of the question, and stones have to be bought and conveyed sometimes a long distance, and for the guidance of those so situated a few general hints as to what to strive for and what to avoid may not be out of place. Remembering always that it is natural scenery which we wish to reproduce in a rock garden, it naturally follows that the stones should look as old as possible. If, therefore, we live near a moor or any other place where old weather-beaten stones are obtainable, such stones should have preference over all others. In all probability they would not only be dark in colour, but would also be covered with natural moss and lichens, and their use in the rock garden would immediately impart to the work a character of natural antiquity altogether unobtainable by means of new stones, which would require exposure for many years before the surfaces would look weather-beaten. The larger the stones the more natural will be the appearance of the work. This is a rough and ready rule, subject, of course, to modifications, according to the extent of the work. For rock gardens on a small scale, say, requiring only from 10 tons to 20 tons of stone, pieces of stone varying from  $\frac{1}{2}$  cwt. to about 20 cwt. would be quite sufficient, but in works on a large scale some of the pieces of stone may weigh

several tons if the necessary appliances for lifting, &c., are available. In every case a load or two of very small stones weighing only a few pounds should always be added, and should if at all possible have the same aged appearance on the surface as the main body of stone selected for the work. This is a most important point. When stones are put together to resemble large blocks of rock there will be many crevices or corners which will have to be made good with both plants and small stones to unite apparently several lumps of stone into one large block, and if the small stones used for that purpose should be newly broken, while the main body has an old-looking surface, the effect is marred considerably.

As to the colour of the stone it has already been hinted that white or conspicuously coloured stone should be avoided. Much must, of course, depend on the nature of the stone obtainable, but the colours which best show up both bright flowers and green leaves are dull red-brown and dark grey.

##### GEOLOGY IN THE ROCK GARDEN.

Since it is impossible to construct a good rock garden without some knowledge of the works of Nature I will briefly touch upon a few points which in this connexion I consider of vital importance. Geologists divide all rocks into two great classes, namely:

(a) *Igneous rocks*, which are devoid of fossils, and show no proper stratification. These, it is assumed, were



A LESSON FROM NATURE: NATURAL GRANITE ROCKS ON ST. MICHAEL'S MOUNT, CORNWALL, THE PROPERTY OF LORD ST. LEVAN.



originally in a more or less liquid state caused by fusion, and were either poured out over the surface of the earth in a molten condition or were consolidated before reaching the surface.

(b) *Sedimentary or stratified rocks.*—These were formed under water, either through the accumulation of the *débris* from disintegrated previous rocks which the water had sorted into successive layers, or through the secretive power of certain organisms, such as the minute shells or skeletons of small crustaceae, &c.

In shape, general distribution, and arrangement both classes differ very widely indeed, and it is absolutely necessary to know at least the rudimentary principles of the natural disposition of these rocks before we can possibly build rocks which should resemble Nature's work. I will, therefore, briefly state the different characters of these two sections as far as they affect the construction of rock gardens.

IGNEOUS ROCKS.

It has already been stated that igneous rocks are considered to have been at some period in a molten condition. They usually consist of several minerals mixed together more or less evenly or scattered throughout a more or less vitreous ground mass. Geologists sub-divide the igneous rocks into *plutonic rocks* and *volcanic rocks*. The plutonic rocks are assumed to have been upheaved from the interior of the earth by great heat. During these upheavals the molten masses forced their way through other strata, and when found on the surface they are generally scattered in the wildest profusion. Granite and porphyry are the best examples of plutonic rocks. The second sub-division, i.e., the volcanic rocks, are supposed to be the result of volcanic eruptions during bygone ages; to this latter class belong trap, basalt, greenstone, &c.

Of all igneous rocks the most important for rock building is probably granite. Newly broken in a granite quarry it may not be a desirable material to work with, as there is something cold and unattractive in its even light grey colour which does not lend itself to the making of picturesque scenery; but the case is altogether different when pieces of granite can be obtained, which already have a weather-beaten surface, darkened by ages of exposure and covered with moss and lichen. Such pieces are among the most desirable of all materials for rock building, and on Dartmoor or the moors of Cornwall such boulders may be had in quantity and of all sizes.

Since we have to look to Nature for our teacher it may be well to take a lesson in arranging granite rocks from Nature's own work. The accompanying illustration was prepared from a photograph, which I was allowed to take on St. Michael's Mount, Cornwall, the property of Lord St. Levan. It shows the picturesque beauty and the characteristic disposition of granite rocks towering high above the ground in one place and vanishing abruptly into the ground in another, the rocks forming bold projections and deep recesses sometimes hidden from view by luxuriant vegetation, sometimes just piercing through the carpet of plants, suggesting still bolder and more extended rocks below the surface. The plants in this instance consisted of dense masses of *Armeria maritima* (unfortunately out of bloom when the photograph was taken) and *Silene maritima*.

Stratification does not occur in granite, and setting up artificial rocks with blocks of granite arranged in lines would be absolutely wrong and contrary to Nature; in fact, no rock could be more irregular. Sometimes, it is true, there appear to be lines which do somewhat resemble the strata in sedimentary rocks, but they are merely fissures, caused most probably by contraction during the process of the cooling and consolidating of the originally molten mass.

It will thus be seen that igneous rocks, and granite boulders especially, demand less restriction in their use for the rock garden than stratified rocks, and the rock builder when working with granite boulders has more scope than with most other kinds of stone. Sometimes, when loose stones with an exposed surface cannot be obtained

from a moor, it is possible to obtain them from granite quarries; not newly broken stone—which I consider is quite unsuitable—but stones thrown aside as useless, and which have had several years of exposure. In almost every granite quarry unexpected breakages occur from time to time of stones originally raised with a view of being hewn and chiselled into more or less regular shapes, but which by some means or other were spoiled for the original purpose, and being "too ugly for a builder," were thrown aside. I know quarries which during many years of working have amassed great piles of such stones, which have not only an exposed surface but are covered also with moss or lichen. Such stones would be especially suitable for stepping stones in a bog garden or similar purposes, but also for bold masses of rock-work they are often well adapted.

SEDIMENTARY ROCKS.

Totally different from igneous rocks are the sedimentary or stratified rocks, which, as the name implies, were formed under water and were afterwards exposed to view, either by the receding of the water or by upheavals from the interior of the earth. All of them show more or less regular lines or strata. Sometimes these lines are broken up by volcanic action or by igneous rocks in a state of fusion having come in contact with them or forced their way through them. In the latter case the strata are often irregularly twisted or show indistinctly as in some kinds of limestone, slate, &c. Other stratified rocks useful for rock building are various kinds of sandstone, flint, oolite, &c. The stratified rocks also include the so-called *metamorphic rocks*, which have become crystallised, and whose nature has changed owing to contact with igneous rocks in a molten state.

*Limestone* is the most important of all stratified rocks for rock garden-making, and naturally contains more variation, boldness, and picturesqueness than most other stratified rocks. Its colour, too, is generally such as not to be objectionable, even when fresh from the quarry. A very useful kind of *oolitic limestone* of a dark yellow or light brown colour is found near Bath, where blocks of all sizes are often obtainable. Some of these blocks may be seen in the botanic gardens, Victoria Park, Bath, where a great number were used. Some of these stones are perforated naturally by large holes, forming excellent pockets for plants.

*Red sandstone*, especially of the "old red sandstone" formation, also is well adapted for rock building, its rich warm colour contrasting effectively with the verdure of the plants.

When stratified rocks are used for the rock garden, it will, of course, be necessary to imitate the natural strata, and for this purpose it will be well to select mostly flat stones of various sizes. Not only will these be found most useful for building apparently large blocks of rock, but they



A WINTER PICTURE (THE WHITE STEMMED BRAMBLE, RUBUS BIFLORUS.)

are also useful for a variety of other purposes, such as bridges across a streamlet, rocky steps, or even for forming narrow crevices below the ground surface, to be specially prepared for choice alpine plants.

The actual way of building such rocks without making them monotonous will be fully described in subsequent chapters.

Elmside, Exeter.

F. W. MEYER.

(To be continued.)

TREES AND SHRUBS.

RUBUS BIFLORUS.

FOR horticultural purposes the hardy Brambles may be readily divided into three well-defined groups—firstly, those grown for their fruits; secondly, those which are valuable on account of their flowers; and, thirdly, those having coloured stems. In the latter group some ten or a dozen species can be included, the one under notice—which is commonly called the White Stemmed Bramble—being possibly the best known. It is a native of the Temperate Himalaya, and has been known for many years, though it is only recently that it has been cultivated to any great extent. When planted in good rich loam it grows to a height of from 9 feet to 12 feet, the stronger shoots being 1 inch in diameter. The flowers, which are produced during summer, are white and rather inconspicuous. The leaves which are composed of from



three to five leaflets, are fairly large, green above and white beneath. The stems are armed with stout hooked prickles, and are densely covered with a thick glaucous bloom, which, seen in winter after the leaves have fallen, gives the plant a quaint and picturesque appearance, especially when the sun is shining on it, or on a bright moonlight night. After the flowers are over it is a good plan to cut away all the old wood, as is done with Raspberries, the young shoots being much better coloured than the old. For a small garden it is hardly a plant that can be recommended, it is such a rampant grower. For a large garden or park, however, especially if it can be allowed to grow in a semi-wild state, it is distinctly valuable. When growing vigorously in rich soil some shelter from high winds should be given, for as the tops are heavy they are liable to break during a gale. *Rubus biflorus* is easily raised from seeds, and the stems of one year old plants are usually well coloured.

W. DALLIMORE.

### FLOWERING SHRUBS BY WATERSIDE.

WHEN planting the margin of a lake or stream in the garden the great value of flowering shrubs for this purpose is often overlooked. The charms of water gardening lie hardly less in the selection and arrangement of plants for the margin than of those in the water itself, for

unless the bank is clothed with a suitable collection of plants there will be no reflection of their flowers and foliage, as in different seasons they exhibit their fullest beauty. The delightful effect that the *Rhododendron* by the waterside produces when in flower is well shown in the accompanying illustration, and there are other hardy flowering shrubs equally as suitable and as beautiful that might with great advantage frequently be planted in a similar position.

H. T.

### NOTES ON LILIES IN 1902.

INTEREST in the Lily family has not received the stimulus it did in 1901, when the conference at Chiswick drew together so many admirers of this beautiful class of plants, who were not only delighted at the display then afforded, but were also supplied in the autumn, through the *Journal of the Royal Horticultural Society*, with the numerous and most interesting papers read at the conference. New Lilies, too, have this year been conspicuous by their absence, and throughout the season only one has been given an award by the *Royal Horticultural Society*. This is

*LILIIUM BROWNII CHLORASTER*,

which was given an award of merit when shown by Messrs. Veitch on September 23. It is by no means a new, though still a scarce, Lily, for it first flowered at Kew in 1891, when it was named as above by Mr. Baker. This Lily was sent by

Dr. Henry in 1889 in the same box as *Lilium Henryi* and also *L. Brownii leucanthum*, a trio of most valuable Lilies. Two of them—*L. Brownii Chloraster* and *L. Henryi*—have in conjunction given us that most interesting hybrid *L. kewense*, which has been illustrated and several times noted in *THE GARDEN*. Strange to say, it resembles nothing so much as a small spotless flower of *L. auratum*. Of the rarer Lilies, we have made the acquaintance of

L. KELLOGGII,

a pretty Turk's-cap-like flower of a pale lilac tint, spotted with purple. It is a native of California, and, like many species from that district, it is doubtful if it will prove very amenable to cultivation. *Lilium sulphureum* continues to gain ground in popular favour year after year, and it is certainly the most valuable Lily that we have for autumn and early winter-flowering. In reference to this last sentence exception must be taken to those popular kinds such as *L. auratum*, *L. longiflorum*, and *L. speciosum*, the bulbs of which have been kept in a dormant state by means of refrigerators, which, of course, upset all our preconceived notions by flowering at almost any season.

Concerning what may be regarded as the rank and file of the Lily family, the year 1902 has been on the whole by no means a favourable season for them, the cold damp spring and late frosts playing considerable havoc in many cases, while the more robust kinds have been particularly late in expanding their flowers; thus in many cases June was well advanced before such early-flowering kinds as *L. pyrenaicum*, *L. davuricum* or *umbellatum*, and *L. elegans* were at their best. With regard to these species, and also the early summer-flowering



RHODODENDRONS BY WATERSIDE.



kinds, this was of little account, but with *Lilium speciosum*, whose late summer and early autumn display out of doors is usually so valuable, the result was entirely different, for, being a fortnight or more later than usual, the cold autumnal nights and heavy dews prevented the buds from opening properly, hence in many places the display was greatly inferior to what had been reasonably anticipated. This was especially the case with imported bulbs, which flower from ten to fourteen days later than established ones, a fact that is often not sufficiently recognised. Under glass *L. speciosum*, represented by its several different forms, is as valuable as ever for bridging over the period between the summer-flowering plants and the *Chrysanthemums*, the fact that it is rarely attacked by insect pests being a great point in its favour. Of the

#### DIFFERENT LILY DISEASES

that give so much trouble the fungus that attacks *Lilium candidum* has been in many instances unusually prevalent, so much so as in several districts entirely to rob this charming plant of its beauty. I read in *THE GARDEN* a short time since that the bulbs of this Lily sent from France were a source of great trouble, as they were reeking with disease, and this is also my experience. Another cause is, I think, that it is impossible to get the fact generally recognised that this Lily should at the latest be planted by the end of August, hence large quantities of bulbs are sold two or three months later than this, and to keep them even partially dormant up to then they have been dried in warehouses or so treated that a good deal of their vitality is lost, and they then readily fall a prey to disease. In my opinion a golden rule to be observed in the case of *L. candidum* is if they do well by all means leave the bulbs undisturbed.

*Lilium auratum*, too, has in many places failed again, this year the bulbs in some instances being attacked, while in others what is generally regarded as a kind of sun-stroke has been very fatal. At all events so prone is this Lily to disease that in many districts it is quite useless. Another point very marked within the last few years is that we do not get such good bulbs from Japan as was at one time the case; indeed, judging by the state in which many of them reach here, one is forced to the conclusion that the disease prevails in that country to a considerable extent.

Of *L. longiflorum*, which vies with *L. speciosum* in being the most popular Lily that we have, enormous quantities of splendid bulbs are sent from Japan, but in their case the season would appear to be considerably later than last year, for in 1901 large quantities were disposed of at the London auction rooms on October 7, whereas the first instalment (and that a small one) this year was not till October 27, and after that it was necessary to wait till the 17th and 19th inst. H. P.

#### AYRSHIRE AND EVERGREEN ROSES.

THE graceful habit of growth and wealth of blossom of the Ayrshire and evergreen Roses cannot be better displayed than when clambering over porch and house front, as shown in the accompanying illustration. One could wish their beauty were not so fleeting. Without a doubt the old *Félicité Perpétue* and its

pretty companion Alice Gray are the best representatives of the two groups, although there are several others, such as *Ruga*, *Bennett's Seedling*, *Flora*, and *Myrianthes Renoncule*, that are also valuable. I would suggest that a vigorous-growing Tea or Noisette Rose be planted wherever practicable to mingle with the summer bloomers, so that the house front and porch be not entirely devoid of bloom in the autumn. What could be more lovely than the ruby foliage and golden blossom of *Rêve d'Or* or the cheerful red of *Longworth Rambler* peering out among the white clusters of *Félicité Perpétue*?



ROSES ALICE GRAY AND FELICITE PERPETUE OVER PORCH.

The Ayrshire and evergreen Roses should be left severely alone as regards pruning, all that is necessary being to thin out a few of the older growths now and then. Do not forget to give them stimulants in the summer, for they prove of inestimable value. It must not be supposed that these pretty Roses have no other uses than for lofty climbing. I love to see them running over a heap of tree stumps or a mound of earth. I am not sure I care to see Roses on a covered pergola, for much of their beauty is lost to view, but for arches or a series of arches no Roses can be more delightful than these.

PHILOMEL.

#### KEW NOTES.

##### INTERESTING PLANTS IN FLOWER.

###### Temperate House.

*ACACIA UROPHYLLA*, *Begonia coccinea*, *Cytisus filipes*, *Podophyllum pleianthum*, and *Rhododendrons* (various Malayan varieties).

###### Palm House.

*Acokanthera spectabilis* and *Sterculia mexicana*.

###### Orchid Houses.

*Angræcum pertusum*, *Bifrenaria Charlesworthii*, *Bulbophyllum auricomum*, *B. lilacinum*, *B. Pechei*, *B. rufinum*, *Calanthe Veitchii*, *C. vestita* var. *luteo-oculata* and var. *rubro-oculata*, *Catasetum chlorochilum*, *C. christyanum*, *Cattleya labiata* var. *dowiana*, *Cirrhopetalum makoyanum*, *Cymbidium dayanum*, *C. giganteum*, *C. traceyanum*, *Cynorchis lowiana*, *Cypripedium concolawre*, *C. fitchianum*, *C. insigne*, *C. insigne* var. *Sanderiae*, *C. lecanum*, *C. Morganiae*, *C. pitcherianum*, *C. Sallieri*, *C. spicerianum*, *C. venustum*, *C. virens*, *Dendrobium aureum*, *Laelia anceps*, *Laelio-Cattleya Decia*, *Listrostachys* (*Angræcum*) *pellucidum*, *Lycaste xytriphora*, *Masdevallia Chelsoni*, *M. Chimera*, *M. ignea*, *M. nidifica*, *M. wagneriana*, *Maxillaria nigrescens*, *M. rufescens*, *Odontoglossum crispum*, *O. gloriosum*, *Oncidium bracteatum*, *O. carthaginense*, *O. monachicum*, *O. raniferum*, *O. tigrinum*, *O. varicosum*, *Pleurothallis cardiocrepis*, *P. longissima*, *P. velaticaulis*, *Selenipedium calurum*, *S. grande*, and *S. Roezlii*.

###### T Range.

*Echmea celestis*, *Allamanda purpurea*, *Arisæma Wrayi*, *Begonia haageana* and various winter-flowering hybrids, including the new tuberous-rooted varieties *Adonis*, *Ensign*, *John Heal*, *Julius*, *Mrs. Heal*, and *Venus*, also *Gloire de Lorraine* and *Turnford Hall*; *Clerodendron speciosum*, *C. splendens*, *C. umbellatum*, *Clivia Gardeni*, *Hippeastrum aulicum*, *Ipomæa Horsfallii* var. *Briggsi*, *I. ternata*, *Jacobinia chrysostephana*, *Justicia calycotricha*, *Lindenbergia grandiflora*, *Nerine Mansellii*, *Pitcairnia alta*, *P. muscosa*, *Plumbago rosea*, *Spathiphyllum floribundum*, and *S. Minahassæ*.

###### Succulent House.

*Cotyledon fulgens*.

###### Greenhouse.

Among other things the following are conspicuous: *Acacia platyptera*, *Begonia glaucophylla*, *B. Gloire de Lorraine*, *Centropogon lucyanus*, *Cestrum aurantiacum*, *Chrysanthemums* in variety, *Cyclamen*, *Epacris* in variety, *Erica melanthera*, *Hidalgoa Wercklei*, *Jasminum grandiflorum*, *Luculia gratissima*, *Peristrophe speciosa*, and various *Primulas*.

###### Outdoors.

*Escallonia exoniensis*, *Galanthus nivalis* var. *octobrensis*, and *Iris unguicularis* (*stylosa*) are conspicuous.

#### IN A KENTISH GARDEN.—1902.

Now that the much-abused year 1902 is drawing to a close, and we gardeners have almost ceased to care what further disagreeable surprises it may have in store for us, I



venture to send a few notes on the behaviour of my shrubs and plants, under what may, I think, be considered most trying conditions up to the middle of October.

The winter was certainly a mild one, taken as a whole, though we had a very sharp spell of frost in February, culminating in the fall of the thermometer to 5° Fahr. on the 16th, which undoubtedly did considerable damage, while the drought in April and general want of genial weather throughout the spring did not help matters. Then came the memorable and malignant frost of May 14, the thermometer here falling to 22°, and, by way of a climax to our troubles, we had a most terrible hailstorm in this district on September 10, the effect of which, especially on the Hops and fruit crops, was indeed disastrous, gardens suffering also most cruelly. But there is always the proverbial silver lining to the darkest cloud, and as far as the garden is concerned it is comforting to record that never were Roses as glorious as they have been this year. I say "have been," but even now (October 20) there are many lovely blooms on the plants and countless buds, needing only a little more sunshine to develop them. The first blooms, though a bit late, were truly magnificent, hardly any trees here (dwarfs on seedling Briar and on their own roots) failing to contribute to the feast of colour and sweetness, many of the individual flowers being of superb form and brilliance.

Among my own Roses I consider the best to have been *La France* (finer than ever I saw it before), *Caroline Testout*, *Mrs. Sharman Crawford*, *George Nabonnand*, *Viscountess Folkestone*, *Clara Watson*, *White Maman Cochet*, *Beauté Inconstante* (better than usual), *Mme. Pernet Ducher*, *Mrs. W. J. Grant*, *Mme. Falcot*, *Anna Olivier*, and climbing *Perle des Jardins* (on wall). *L'Idéale* was very fine on a wall, but *Fortune's Yellow*, which last year had about 500 blooms, produced only twenty or so this season. Altogether the Roses have, as it were, saved the situation, and instead of converting one of my small beds into another bit of rockery (as I had thought of doing) I shall have to reverse the process perhaps and go in for more Roses.

Spring bulbs were decidedly good all round. I will mention no names except *Anemone blanda*, which grows like a weed here in my stiff loam in all its lovely shades, and which, to my mind, is not sufficiently grown by lovers of spring flowers. The last *Narcissus* flower had hardly withered, however, when the frost of May 14 came upon us and worked such fearful mischief. The orchards in this district suffered cruelly, the Cherry crop being practically destroyed. Last year (a phenomenal one certainly for Cherries) we picked about 400 bushels in my small orchard; this year we managed with difficulty to gather 3 bushels! Pears were nearly all ruined, and the Apple crop reduced to about one-third of its normal amount. Bush fruits and Strawberries came out of the ordeal better, the latter quite recovering themselves and producing a good crop.

The damage done by this frost, in conjunction with the severe one in February, to my garden was considerable, though the list of things killed outright may seem to disprove this statement. *Ceanothus Gloire de Versailles*, *White Tree Lupins* (nearly all), *Salvia patens* (left out for four years previously with impunity), *Ostrowskia magnifica*, and a few Tea Roses were absolutely wiped out, but I may be wrong in attributing the loss of the *Ostrowskia* to the severe weather, as it was by no means doing well before.

Among the severely wounded, but since recovered, were the common Myrtle, *Olearia stellulata* (*Eurybia gunniana*), *Arundinaria Falconeri* (harder hit than usual. *Phyllostachys mitis*, *P. sulphurea*, and *P. Henonis* were quite untouched), and *Dracena australis*. The Walnut trees all dropped their first crop of leaves (and of course their fruit) and took a long time to reclothe themselves. Hardy Ferns were browned or "burnt" a good deal, but soon got over it. *Olearia Haasti* was uninjured, but *Solanum jasminoides* was much affected, and has since refused to flower, while *Berberis nepalensis*, *Yellow Tree Lupins*, and one or two white ones were badly crippled.

In the case of *Dracena australis* an interesting recovery has taken place. I have grown several out of doors for some years, and two of them had done exceedingly well in semi-shade, and were of considerable height. I also put out two more small ones last autumn. After the frost the larger of the old ones, which got a trifle browned, soon went ahead again, but I fancied the rest were all dead. Not so, however, for the small ones have both sent up suckers from their roots, while the other old one has not only done this, but has thrown out a perfect chaplet or circle of healthy shoots round the trunk 4 feet from the ground. The effect of this, with the dead stem above looking wonderfully like a "tip-tilted" elephant's trunk, is very peculiar. I hope the new crown may eventually form a good leafy head.

I fear my two New Zealand pink Brooms (*Notospartium Carmichaeliae*) are mortally wounded—they are alive, but that is all I can say. Other Brooms did well, especially *Genista virgata*, every spray of which was gloriously laden with its golden burden; it is, indeed, a lovely thing, and apparently quite hardy. *Carpenteria californica* (against a wall) was not damaged, but it did not flower so well as last year. Lilacs flowered well; but the Laburnums were a complete failure with me. *Rhododendrons* were better than usual in spite of the April drought. My *Calochortus* bloomed magnificently, both Spanish and English *Iris* were very fine; the various forms of *Iris germanica* not so good. Herbaceous Phloxes were late and rather weak, the only exception being *Avalanche*, a splendid success; it was far and away the best white of the lot. *Delphiniums* were good, and by cutting down the old flower-stems I have prolonged the blooming period until the present time, when I have many fine spikes still going. This may be a reprehensible practice and likely to weaken the plants, but surely it is worth the risk when seedlings are so easily raised to fill blanks.

Generally speaking bedding plants and half-hardy things put out for the summer have done well, though *Browallia elata grandiflora* was a miserable failure. Sweet Peas were better than I ever had them before, and are still flowering, though rather feebly. I regret to say the Lilies were, with one or two exceptions, very poor and scraggy. *L. candidum* threw up a good few spikes, but with me the flowers were small both in number and size. At one time I feared the foul disease was among them, as the foliage decayed and turned brown, but the blooms came to maturity, so I trust it was only the effect of the weather, or it may be that the exceptionally strong blooming of the previous summer had somewhat exhausted the bulbs. *L. szovitzianum* was again very fine, one spike having twenty-two flowers. *L. excelsum*, *L. speciosum Melpomene*, *L. Grayi*, and *L. longiflorum insulare* (Wallace's new form) were also very good, the latter being

most attractive with its glossy dark foliage. *L. giganteum*, the only bulb I possessed, flowered fairly well, though the spike was barely 5 feet high. The stem is still green and is crowned with a group of promising-looking seed-pods, but I take it, from what I have recently seen in print in the gardening papers, that no seed is ever produced in this country. I shall presently cut the top of the stem off and place it in water or damp sand in the greenhouse and hope against hope. I do not think the seed can possibly ripen in its present position.

*L. rubellum* was about the same as last year, decidedly good, but with a maximum of two flowers to a stem. I wonder if this is the rule with the species. Without going into wearisome detail I may say that the rest of my Lilies were conspicuous failures, with the exception of my old and valued friend *L. Parryi*, who came up smiling as if to show the others how it could be done. In all he decorated himself with twenty-one spikes (assorted sizes) ornamented with 159 flowers; not a good average, but a commendable total considering the fact that only six bulbs were originally planted. The best spike consisted of only seventeen blooms, not to be compared with my thirty-nine of past years, but the grand total is the best I have ever had, and the effect of such a group was very striking.

It may be worthy of record that two years ago I planted a bulb of *L. sulphureum* (*wallichianum superbum*) and also another bulb this year. The older one made no show last year, but this summer sent up two weak and flowerless, but healthy, spikes, while the new one quite lately has developed a fairly promising spike, which cannot possibly come to any good now. Two bulbs of *Alexandra* carefully planted in early spring never came up at all; but I am getting used to the vagaries of these capricious things.

A few words as to the present state of the garden and I will make an end of this long rigmarole. The mild wet weather during the autumn has undoubtedly suited the constitution of many late-flowering plants, though it has by no means agreed with that of *Zauschneria* and *Plumbago Larpenæ*; these are very poor here. On the other hand, *Salvia splendens* *Bruanti* is a fiery blaze of scarlet; hardy Heaths, notably the *Menziesias*, are still in fine bloom; the purple-topped *Clary* (*Salvia Horminum*) is yet a mass of welcome colour; while Stocks, Dahlias, Michaelmas Daisies, Cannas, Begonias, and Marguerites are at their best. How long this desirable state of things will last is uncertain; the first sharp frost will pretty well do for them all.

The rain and the wind have utterly spoilt the *Crocus speciosus*, *Colchicums*, and the few blooms of *Sternbergia* that condescended to appear, but hardy *Cyclamens* are doing grandly. The autumn species flowering nicely, and the others promising well for the early spring. *Gladioli* have not done well; I left nearly all of them out through the winter. Among those that have succeeded I may mention a very handsome dark violet one, *Baron J. Hulot*; this was planted in the spring. Another of the so-called "blue" forms, the name of which I do not know, is of a pale mauve colour and rather pretty, but not to be mentioned in the same breath as the *Baron*.

And now, though I can hardly say I have exhausted my subject, I will conclude by expressing the fervent wish that we may never again have to pass through such a trying and unkindly gardening season as that of 1902.

*Yalding, Kent, October 20.* S. G. REID.



**SUCCESSFUL GRAPE GROWING**

By this post I send you a photograph for reproduction in the columns of *THE GARDEN* should you think it suitable for that purpose. It is a view of a remarkably fine crop of Grapes grown this year in a private vinery at Marpool, Exmouth; it was taken before any Grapes had been gathered. The house consists of seven separate Vine stocks, carrying on the average two rods apiece, and bearing altogether 281 large well-grown bunches of Grapes.

Thus each Vine on the average produced 40 bunches and each rod 20. It should be added that five of the Vines are Black Hamburgh, one is an uncertain variety of Black Hamburgh, and the other is an Alnwick Seedling. All have their roots in an outside border. Three of the Black Hamburgs are believed to be at least 70 years of age, and have the merit of being uniformly the best croppers in the house. The other four Vines, inclusive of the Alnwick Seedling, are to my knowledge more than 20 years old.

Marpool, near Exmouth. J. P. PHEAR.

**CORRESPONDENCE.**

(The Editor is not responsible for the opinions expressed by correspondents.)

**PEAR DIRECTEUR HARDY.**

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The note on page 312 by the Rev. W. Wilks was most opportune, as it will bring to the notice of fruit growers and those who like really good Pears this excellent variety. My reason for sending this note is that I have Pear Directeur Hardy both as bush and cordon trees; the latter may not be the best test as to its fruiting qualities, but there can be question that cordon fruits are valuable for their size, colour, and appearance. Grown as a bush Directeur Hardy promises well,

and, what is better, I thought the fruits grown thus, though smaller, were of finer flavour than the larger ones. This variety is given as a November fruit in catalogues, but ours were ready early in October, and the quality was very fine indeed. I think Directeur Hardy will prove a first-rate cropper, as the trees, though small, are very free, and the wood made is well furnished with fruit buds. Of course my note refers to this part of the country (Syon), but it should thrive well on a wall in the northern counties.

G. WYTHES.

**CINERARIA STELLATA IN THE FLOWER GARDEN.**

[TO THE EDITOR OF "THE GARDEN."]

SIR,—There can be little doubt that this type of Cineraria will, in the near future, play an important part in the flower garden for autumn display. I gave the beautiful variety called Sky-blue, sent out by Vilmorin, a trial this year, and at the present moment it is one mass of the most lovely blue one could wish for. It was quite an experiment. But I observed that the stellata type comes into flower much earlier than the large-flowered kinds, and it occurred to me that with careful management it may be induced to flower early in the autumn, which idea has been fulfilled. Of course early sowing is essential. I sowed the seed from which the plants now in flower were raised last Christmas. They were kept steadily moving and early pricked off into boxes, keeping them quite cool during the winter; in the spring they were again given a little more room, transferring them to larger boxes, and from these they were planted out into beds in June. The beds are shaded by trees and shrubs, and it is naturally a cool place—both soil and position—and this of course just suits these plants.

It would be unwise to plant Cinerarias in full sun; even in the present situation it was found necessary to place a few boughs between them during those few warm days we experienced in July. Of course I do not overlook the fact that the past season has been one admirably suited to such plants. But I also see a future for these plants in shady parts

of the garden, and how well they will associate with Michaelmas Daisies, Chrysanthemums, Marguerites, and autumn-flowering plants. I believe there is no question about success if the seed is sown early enough and proper places are chosen for the plants. What a fine autumn bed may be created by planting these with Aster sinensis (the single mauve or pale blue annual Aster), Aster Amellus bessarabicus, A. Orion, or indeed any of the dwarf Asters.

I trust that this note will be the means of inducing gardeners to give Cineraria stellata a trial in the open. I find they like really rich soil. Another matter worth mentioning is that these plants lift splendidly. Some of the later ones I lifted and potted; they are now large spreading dwarf bushes and masses of lovely bloom.

Cirencester.

T. ARNOLD.

**GRAPES—NEW AND OLD.**

[TO THE EDITOR OF "THE GARDEN."]

SIR,—While there can be no doubt that Lady Hastings is a very good black Grape, it was a matter for surprise that the originator of the variety—Mr. Shingler—should have mated it to such an inferior variety as Gros Colman in the hope of getting from the cross something good. The seedling Melton Constable, obtained from these parents and shown to the fruit committee the other day at the Drill Hall, was almost in appearance and taste the same as Gros Maroc, one of the noblest-looking Grapes we have, yet in flavour most worthless. With Grapes of such noble appearance as we now have, generally easy to grow and fine in bunch and berry, it is to be deplored that efforts in seedling raising should not be more devoted to the production of flavour than is apparently at present the case. Better results might have been looked for by mating Lady Hastings with Madresfield Court or Mrs. Pince, especially as Lady Hastings, having come as a sport from Muscat Hamburgh, high-class quality should be her dominating feature. Very recently, when two named Grapes were shown from one grower at the Drill Hall, one, an old variety, was much the better flavoured, although least ripe. Happily, few new Grapes are put into commerce or come to the Drill Hall, and it is well that it should be so whilst growers make appearance and size of berry their primary aim rather than first-class flavour. Our very best-flavoured and most admired of table Grapes are all old—Black Hamburgh, Madresfield Court, Mrs. Pince, Muscat Hamburgh, and Muscat of Alexandria. Such varieties as Gros Colman, Black Alicante, and Lady Downe's are popular because they are easily grown, great croppers, keep late, and can be sold very cheaply in the market, but they have no place amongst best flavoured Grapes.

It may appear to be a grave indictment of exhibitions, but it does seem as if these, by specially encouraging the culture of large-bunched Grapes, even if of low quality, put a premium on the culture of inferior varieties. At the great show at Shrewsbury it was not pleasant to find such inferior varieties as Alicante, Alnwick Seedling, and Gros Maroc, all certainly finely berried and finished, though generally the bunches were ugly, placed before collections which included Black Hamburgh, Madresfield Court, Mrs. Pince, Muscat Hamburgh, &c. But, so long as at exhibitions appearance is almost everything in Grapes, and quality or flavour is of minor importance, so long will this thing be. Grape raising is yet of far too haphazard a kind. Some seedlings that have names given them are probably mere natural productions. Some are probably artificially produced, yet with no definite aim or purpose. Is it not possible for someone having youth and opportunities on their side—such as



AN AMATEUR'S VINERY. (From a photograph kindly sent by Sir J. P. Phear.)



Messrs. Rivers—to do for Grapes what their talented progenitors have done for Peaches and Nectarines—to undertake systematic fertilising and breeding for quality? To do that well it is needful to understand in what respect high-class Grapes may be deficient in cultural, cropping, or setting requirements, and seek to amend them, just as inferior, yet easily-grown, free-setting Grapes need to have good flavour put into them. Large berries, however much they may be admired on the show boards, are far from being essential. Certainly, except to gratify vulgar, ostentatious wealth, they are not wanted on the dessert table. Of Apples every one prefers delicious Cox's Orange Pippin, even if small, to huge, tasteless Peasgood's Nonsuch, or Winter Nelis Pears to Beurré Clairgeau, and the same taste should apply to consumers of Grapes. But we must begin by reforming our exhibition requirements. A. DEAN.

### THE UBIQUITOUS AMPELOPSIS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The suggestion made by "F. H. C." on page 340 of THE GARDEN of the 15th inst., that in reference to the very general use of Ampelopsis Veitchii, it is possible to have too much of a good thing, I have heard repeated more than once lately. While agreeing with all that "F. H. C." says as to the desirability of introducing flowering plants with the well known creeper in such a manner that as they grow the creeper may be partially withdrawn to make room for their further development, it seems that the selection of plants must be carefully considered in relation to the character of the building itself. "F. H. C." is not unmindful of this very important part of the subject, for he observes that in "a quaint old country town" known to him there is no doubt that the Ampelopsis "is smothering by rapid strides the architectural beauties of some of the old houses." The advantages of the Ampelopsis over other climbing plants, notably Ivy, have been well shown in a paper read some time ago by a well known modern architect, who pointed out that while Ivy permanently covered all architectural detail and even destroyed it, the thread-like stems did no harm and could be easily removed. This could not be the case with such woody stemmed plants as Wistaria and Magnolia. In the case of a mansion where the lower walls are quite plain, such plants could well be used, and as an illustration of this I may perhaps say that I recently saw on the front of a mansion near Kingsbridge Magnolias and Myrtles some 15 feet to 20 feet high, splendidly in flower at the same time. These were a great relief to the monotony of even the Ampelopsis beautiful as it is.

JOHN R. JACKSON.

Claremont, Lympstone, South Devon.

### CUTTING DOWN HARDY PLANTS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—In reference to the discussion in THE GARDEN on cutting the foliage of hardy plants, may I be permitted to offer a few remarks, not to the great army of my professional brethren, but to those who are in doubt on the subject. As the simplest example, almost everyone knows that to cut off the spikes and leaves of bulbous plants in a green state, instead of allowing the sap to go back to the bulbs naturally and build up fresh tissue for another season's growth, is to weaken them for one or more years at least. Now I feel sure that what holds good with bulbs is equally as important in regard to hardy plants, the only difference being, the latter have crowns to build up with the returning sap in place of bulbs. Plants of the nature of Delphiniums, Pæonies, Dictamnus, and those having a fleshy root-stock generally are a good example of my meaning.

Why the great hurry to cut or even partially cut down a plant? My rule is, immediately a plant goes out of flower cut it neatly across just below the seed pods; leaving them on would only weaken the plant unless one wants to save seed, then a few pods may be left to mature.

There is nothing unsightly about the great majority of hardy plants although out of flower; in fact, most of them make very handsome and attractive bushes for a long time after flowering. As the tops die down they are gradually cut off. Finally, to those in doubt, it will be found a good safe rule when cutting hardy plants to put the knife through nothing in which a vestige of green remains. F. M. U.

## ORCHIDS.

### NOTES FROM THE DELL.

TRICHOPIILIA BREVIS.

A REMARKABLY well-cultivated specimen of this beautiful, but, unfortunately, very scarce, plant is now in bloom in The Dell gardens, and both from its beauty and rarity claims notice. The species was first imported from Peru in 1894 by Messrs. Sander, of St. Albans, and flowered in 1895, the plant being figured in the *Gardeners' Chronicle* of that year. Botanically, the nearest relative of this species appears to be *T. sanguinolenta*, better known as *Helcia sanguinolenta*, but is widely separated from that plant, as from the other known members of the genus, by its cone-like, nearly cylindrical pseudo-bulbs—so different to the compressed pseudo-bulbs of the coccinea section—the colouring of the flowers, and the campanulate shape of the labellum. A coloured plate of the plant was also given in THE GARDEN five years ago, and reference to that shows a good typical form, inferior in colour and size, however, to the one in The Dell collection. The clear colouring present in this form is as remarkable as the perfect cultivation, for the general opinion of growers is that *Trichopilia brevis* is not particularly amenable to culture. The spikes are produced laterally from the base of the pseudo-bulbs, and the flowers at first sight remind one of a glorified *Miltonia candida*. The sepals and petals are rich yellow, heavily marked with confluent blotches of polished chestnut; the lip, the edges of which are beautifully frilled, is glistening white, with a few purplish marks on the base and a slight yellow tinge present in the throat; the leaves are decidedly petiolate, pointed, dull green in colour, but still retaining the stout consistency common to the genus.

LYCASTE BALLIE.

A very handsome hybrid *Lycaste*, also in flower, attracted attention. Obtained from *Lycaste Skinneri* crossed with *Lycaste macrophylla* (plana) *measuresiana*. It was originally named by Messrs. Sander and Sons as *Lycaste G. S. Ball*, but the name was altered to the present form, *Ballie*. The bold, clearly-defined flowers are fully as large as those of a good *Lycaste Skinneri*, but quite different in colour. The broad sepals are a soft plum-red; the petals project forward, the edges being slightly reflexed and wholly of a bright rose-red, with still brighter red-rose spots. The same colouring is present on the outer surfaces, but in a less degree. The lip has a ground colour of creamy yellow, but thickly covered, in some places so much so as to be quite hidden by sanguineous red. Hybrids such as these form welcome additions to our Orchid collections. While quite as beautiful, judging by this example, they are the more interesting as varying so much from the numerous *Cattleya* and *Cypripedium* hybrids which form such a deservedly prominent feature in the best Orchid collections of the present day.

CATTELEYA LABIATA.

Reference must also be made in these notes to the grand show made by that most useful of the autumn-flowering Orchids, *Cattleya labiata*. At The Dell, in spite of the number of plants in flower, no two varieties are alike and no poor forms are visible. The plants are pictures of vigour and health, evidenced by the number of flowers on the stout, strong spikes. A white variety is conspicuous from its chaste whiteness, broken only by a shade of pink on the segments and crimson lines and purplish markings on the labellum. Near it are other forms of this beautiful *Cattleya* in many shades and shapes, but all of them excellent.

In the same house, among a host of other incomparable species and varieties, is a grand specimen of that truly wonderful form of *Cattleya bowringiana* known as The Dell variety. This is by far the finest *bowringiana* known, surpassing all others in the size of its blossoms, the depth of their purple colouring, and the number produced in a single inflorescence. ARGUTUS.

### THE RESTING OF ORCHIDS.

THIS very important operation, the resting of Orchids, is one which is often misunderstood. It is an operation too often carried out indiscriminately by novices and others. Many persons imagine that resting simply means the withdrawing of water for a definite period after growth is completed, but to the ardent cultivator the term means something more, for the same treatment does not suit all species. For instance, although *Odontoglossums* require a certain amount of rest, yet it is disastrous to withhold water as you would in the case of *Dendrobiums*. Or take again *Cypripediums* and certain species of *Cattleya* it is obvious that the former do not need a drastic drying off to the same extent as the latter. These then will serve as examples. Before we proceed it will be well to find out what the term "rest" does really signify. Briefly it may be said to be a cessation of growth for a short period, commencing when the growth is completed and thoroughly ripened until it commences flowering. As soon as the plants show their flower-spikes their rest is over and their growing season has commenced, though it must be borne in mind that until the growths have actually started water must be sparingly administered. Pseudo-bulbous species of Orchids mostly require a dry rest, whilst the evergreen bulbous species require a rest, but that in a limited form, inasmuch as they require to be kept moist at the roots throughout the year.

The resting of Orchids requires more attention on the part of the cultivator than when the plants are in full growth, and experience alone will show to what extent the operation may be carried out. *Dendrobiums* require very careful attention as regards their resting period. The growth must be quite completed before the water supply is gradually withdrawn, and great care must be exercised after the deciduous species have shed their foliage so to supply them with water that the shrivelling of the pseudo-bulbs is prevented. A necessary item when resting Orchids is that of fresh air. This may be supplied on all favourable occasions, great care being taken to avoid draughts, which are disastrous.

J. DENMAN.

The Laurels, Cains Cross, Stroud, Gloucester.

### NEWLY IMPORTED ORCHIDS.

The season of Orchid importation being now in full swing a few words as regards the treatment of the same may not be altogether superfluous. The plants as bought from the auction or sale-rooms are invariably in a dormant state, and often they are found to be shrivelled up and in an unsatisfactory condition owing to the long journeys by land and sea which they have travelled. It is obvious then that these Orchids require careful treatment and nursing to bring them back to health and vigour. The first thing to be done



when an importation is received is carefully to unpack them, and afterwards place each individual plant upon a bed of damp moss, in a temperature of about 60°, and keep them and the surroundings constantly moist. Provided these conditions are constantly provided the young growths will soon start, but before they do so a thorough cleaning of every part of the plants is essential. This fact should always be borne in mind, because if neglected the result will be a rapid spread of scale and maybe thrip, which when once established will be hard to exterminate. Each plant should be dipped in a solution of soft soap, which tends to soak the dirt, &c., and will be easily removed afterwards by the use of a soft sponge. During the sponging operations great care should be exercised so as not to damage or rub out the eyes at the base of the pseudo-bulbs, as should this happen the growths may be weakened. When the plants have fairly started into growth they should be placed in a higher temperature, as a matter of fact they may be grown for a time in a temperature 5° or 10° above that they receive when established; they should be constantly kept moist by a frequent use of the syringe and tepid water. If preferred the plants may be suspended from the roof of a warm house, the same conditions being provided as otherwise.

Directly the young growths begin to make headway or roots begin to form the plants should be potted up in pots corresponding to the size of the plants. On no account should they be overpotted. For the first season they may be grown in pots almost filled with crocks, a little peat and sphagnum only being used to keep them in position. Such Orchids as *Cypripediums*, *Vandas*, &c., may be potted up as soon as received, but *Cattleyas*, *Odontoglossums*, *Dendrobiums*, &c., are best treated as advised above. If the plants become established they may in the following year be potted up in small pots, using a compost of peat, leaf-mould, and sphagnum, an abundance of moisture being constantly maintained.

J. DENMAN.

*The Laurels, Cains Cross, Stroud, Gloucestershire.*

## THE KITCHEN GARDEN.

### PEAS IN 1902.

#### DWARF PEAS.

**H**ERE at Lowdham the past season has been a particularly good one for culinary Peas. Never have I seen finer rows in our trial ground, and never have they lasted longer in bearing, some varieties having been in eatable condition for quite three weeks. I think a few notes on this most useful vegetable may be of interest to readers of THE GARDEN. Of first early dwarfs I give the palm to

*Harbinger* (Sutton). It proved itself the earliest wrinkled Pea on trial; in fact, came in to the day with William I. It is a very good cropper, and the flavour is excellent, quite as good as many of the later Marrow Peas.

*Chelsea Gem* (Veitch), which grew this season 2½ feet, bore a fine crop of moderate-sized well-filled pods four days later than *Harbinger*. This is a really good variety and is now very well known.

For my own part I think we could dispense with *American Wonder* and perhaps *William Hurst*. Neither of them are so early or so good as *Harbinger*, but of course the question of soil must be taken into account, for a variety which succeeds on one soil will often turn out poorly on other soil.

*Pierremont Gem* (Barr) stands out as an extra good dwarf Pea to follow the earliest ones; good crop of rather long square-ended pods, well filled with dark green Peas of excellent flavour; ready nine days after *Harbinger*; 2 feet.

*Little Marvel* (Sutton), an excellent early Pea of really dwarf habit, not being above 15 inches high, carries a very good crop of square-ended pods in pairs, tightly packed with dark green Peas of excellent flavour.

Of course any number more of dwarfs might be mentioned, but my aim is not to describe all the varieties in cultivation, but to bring into prominence the most worthy. Among the

#### TALLER-GROWING EARLIES,

*Gradus* (Laxton) takes a leading place; there is no early wrinkled Pea to beat it, if a good stock is obtained.

*Thomas Laxton* (Laxton) is quite an acquisition; perhaps it may be best described as an early and dwarfer form of *Ne Plus Ultra*. Good crop of dark green square-ended pods, containing an average of about eight large Peas; flavour xxx. The crop continues fit for use for a long time; 4½ feet; July 18.

*Empress of India* (Sutton), an excellent variety to follow the very earliest, a very heavy cropper, and the pods are very well filled; grand flavour for an early Pea; height 4 feet.

*Magnificent* (Johnson).—This is a very fine second early, carrying an exceptional crop, pods nearly always in pairs, square-ended, dark green; flavour excellent; 3 feet.

*Boston Unrivalled* (Johnson) bore an immense crop of long-pointed pods, in shape just like *Duke of Albany* but lighter in colour; very good flavour when cooked, the best of this class of Pea; 4½ feet; ready July 29.

*Alderman* (Laxton).—Very good crop of long, dark green pods like *Duke of Albany*, but a few days later; excellent flavour; 5 feet to 6 feet.

*Kelvedonian* (Hurst and Son).—This Pea carried a tremendous crop of square-ended pods, longer than *Ne Plus Ultra*, containing very large Peas of good flavour; height 4 feet; ready July 30.

*The British Empire* (Johnson).—Very good crop, pods in pairs, pointed, well filled with deep green Peas of excellent flavour. The haulm of this variety might appear objectionable to some growers, as it has a peculiar shiny appearance, looking as if it had been syringed with insecticide, but after all we do not boil the leaves but the Peas, and they are really excellent and remain fit for use perhaps longer than any other variety; 2½ feet; August 1.

*Prizewinner* (Sutton).—This must be placed among the "best six Peas"; good crop of exceptionally long, dark green, pointed pods well filled with large Peas of the finest Marrow flavour; good alike for exhibition or table; very robust growth; 3½ feet; ready August 10.

*The Gladstone* (Holmes).—I find this cata-



PEA PRIZEWINNER.

logue as a second early and described in the *Journal of the Royal Horticultural Society* as having nearly straight pods, neither of which points agree with our trials. I have always found it a decidedly late Pea, with very curved pods; very good crop of long pods, well filled with dark green Peas of good, but not best, flavour; a sturdy Pea, which seems to have a good constitution, and would probably succeed where many others would fail; 4½ feet; August 15.



*Late Queen* (Sutton).—An excellent variety, one of the latest; good crop of dark, square-ended pods; large Peas of finest Marrow flavour. This, along with several of Messrs. Sutton's highly-bred Peas requires good soil and cultivation to do it justice.

*Autocrat* (Veitch).—With us the latest and quite one of the best; habit robust in the extreme; good crop of the best quality; should be tried by everyone.

One point has been very much impressed upon my mind of late, namely, the way in which a race of hardy wrinkled Peas has sprung up to take the place of the little round-seeded varieties of ten to twenty years ago. Really there is now no place at all for round-seeded Peas unless it be for autumn sowing. Of the round-seeded I think old William I. is still the best in quality and as early as any.

There has been a great increase of late in the popularity of the dwarfs, and it is not to be wondered at. Firstly, sticks are getting scarce and dear, especially near large towns; and, secondly, the dwarf varieties have been so much improved. Many people contend that the dwarfs do not bear so well as the taller ones, but when one considers that twice as many rows may be grown on a given space, it is easily seen that as good returns may be had from the dwarfs as from their taller brethren. Again, there is saving in time in the sticking, though I think it well worth while to give even the dwarfest of Peas a little support either in the way of brushwood or sticks and strings.

There is no need to grow Peas of inferior quality while we have such a host of really fine ones of equal or superior cropping capacity. As before hinted, some Peas will succeed on land which will not grow others. The best plan is to try a good number and select a few which suit the land best. Many gardeners will order nearly every Pea one has in one's catalogue, in which cases there must be many sorts coming into use at the same time. It would be far better to have fewer varieties, more of each, and make successional sowings.

Rows of Peas are generally—indeed, almost always—placed too near together, so that little sun and air reaches the lower parts, the consequence being little or no crop on the lower part of the haulm. I am perfectly sure that if cultivators would only give their Peas more space they would get heavier and better crops. In our trial grounds we always allow 6 feet between all the tall Peas and proportionate space for the dwarfs.

In these notes there will be missing many a good Pea worthy of mention, but I have purposely avoided the very old friends, such as Prince of Wales, Ne Plus Ultra, &c., as being too well known to need description or comment, while of the newer varieties I have only written of such as have come under my personal observation.

J. D. PEARSON.

*Chilwell Nurseries, Loughborough, Notts.*

## VEGETABLES IN SEASON.

DWARF FRENCH BEAN CARTER'S NEW HOLBORN WONDER.

This class of dwarf Bean, of which the above is one of the best of the type, is somewhat forgotten. I allude to the stringless green-podded Bean, that previous to cooking needs little preparation. The pods should not be cut at all but cooked whole in a young state. If not liked in this way they may be broken, not cut. This new Bean is also valuable for its heavy cropping, and, I may add, it forces well. On the Continent this kind of Bean and the Butter Beans are more valued than the ordinary ones grown in this country. This new

variety is not unlike the Butter Bean, except that the colour is different, Carter's being a green-podded variety. I have in a previous note last year alluded to the Butter Beans, so I only briefly allude to the type on account of its stringless character.

### CAULIFLOWER EARLY EMPEROR.

As there are several excellent Cauliflowers for summer use any new introduction must have specially good qualities to prove better than those already in existence. Last season the new Early Emperor of Messrs. Carter and Co. was sent to me for trial, and it is certainly a grand acquisition for earliness, as, though an early summer Cauliflower, it is quite as valuable for sowing in heat early in the year and growing on for first supplies afterwards. Last season this variety sown the first month in the year in a frame was fit for use the same time as plants sown in the open in August. Given frame protection through the winter I can strongly advise this variety for planting in the open, say, the end of February or early in March for summer supplies. It is certainly a most choice vegetable; the heads are very white and close, and, though large, they are of first-rate quality. The growth is compact, the latter being a great gain in a private garden, and, having such a delicious flavour, makes it doubly valuable. It is the earliest spring Cauliflower I have grown, and this season I hope to give it a much larger space, as it is so much liked.

### EARLY TOMATO WINTER BEAUTY.

To recommend the culture of Tomatoes at this dull time of the year may appear out of place, but it is necessary to sow seed in the early autumn to get a supply in early spring. For the past two seasons Winter Beauty has proved invaluable for its free setting and good cropping; it also matures earlier than many other kinds, and early in the season the latter point is a great gain. At that date Tomatoes are very scarce and a choice vegetable is much prized. There are other so-called winter Tomatoes, but the Winter Beauty is a splendid addition on account of its free setting qualities. Another point well worth attention is that the fruits are of good quality, nearly smooth, of medium size, and a rich colour. For early spring supplies I advise pot culture. Sow the seeds thinly in October, and if sown later it is well to raise in heat and place the seedlings close to the glass from the start. I have never grown any winter plants that gave so good a return as Winter Beauty. Grown in 8-inch or 10-inch pots for fruiting, the plants crop heavily, equal to the best summer Tomatoes.

### PEA SUTTON'S LATE QUEEN IN NOVEMBER.

In November lovers of good vegetables do not expect to get Marrow Peas of the best quality, but the above variety is good all through October, and later if the season is mild. For many years one of our best late Peas was Sutton's Latest of All, and I considered it a very fine variety, but certainly the older variety is eclipsed by the introduction of Late Queen. Its height is from 3 feet to 4 feet, and these medium-growing stout haulm varieties are of greater value than the tall ones. I have referred to the flavour, and in this respect it equals the well known Ne Plus Ultra; the pods are dark green, densely covered with bloom, and the Peas large and remarkably sweet for this time of year. Another strong point in the culture of this late Pea is its freedom from mildew and the way the flowers set so late in the season; the pods fill well and are of splendid quality at the season noted. Being a strong grower the plant to do it justice needs ample space, and, given a good root run, it is enormously productive.

G. WYTHES.

**Mr. Richardson**, late of the Edinburgh Botanic Gardens, who has started business as a landscape gardener was the recipient the other day of a handsome album containing the names of his well-wishers in his new start and a cheque for £55. Mr. A. D. Mackenzie, of Messrs. Mackenzie and Moneur, Limited, made the presentation. Mr. Richardson, it may be added, has been engaged for several years in carrying out the improvements in the botanic gardens.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### CHRYSAETHIUMS.

**C**UTTINGS for trained specimen plants should now be put in. An important point is to have good strong cuttings about 3 inches long cut across below a joint. For large trained plants I prefer stout sucker growths taken off with roots attached. These start freely and will not require any fire-heat, only protection from frost. The cuttings should be inserted in small pots well drained, and filled with a compost consisting of loam and leaf-soil in equal parts, with enough sharp sand to make it porous. On the top sprinkle sand, press the soil firmly round the cuttings, and water with a fine rose water-pot, place the pots in a frame and keep close until rooted. A little air should be admitted for about an hour in the morning to dry up excessive moisture. Many of the late and weak varieties for large blooms may now be struck, but for the general collection I prefer the end of December and early January. In any case the old stools should be placed in a cool airy house, kept as near the glass as possible, and the weakest shoots thinned out in order to afford short stout cuttings.

#### PLUMBAGO ROSEA.

This is a splendid plant to grow where quantities of winter flowers are required for cutting. It also forms a useful pot plant, and the lovely rosy scarlet flowers are very striking when arranged among foliage plants in the stove house. This plant resents moisture overhead when in flower.

#### LILIUMS.

Imported bulbs should be potted as soon as they arrive. Fibrous loam and peat in equal parts with a free admixture of crushed charcoal and silver sand will form a suitable compost. Good drainage is indispensable. Dry powdered charcoal should be shaken over and underneath the bulbs. In potting the bulbs should only be partially covered until growth commences, after which the pots should be filled, as it is very important that the upper roots should be well covered with soil. After potting place them in a cool pit or frame protected from frost. Water should be given very sparingly at first, and the quantity gradually increased as growth progresses.

*Wexham Park, Slough.*

JOHN FLEMING.

### THE FRUIT GARDEN.

#### EARLY VINERY.

REFERENCE has been made respecting the starting of a house of pot Vines and a permanently planted house, containing such early varieties as the Black Hamburgh, Foster's Seedling, and Madresfield Court, having been previously prepared, should now, or at an early date, be closed. A moderately small and comparatively low house, provided with inside borders, is suitable for early forcing, but should there be outside borders they should be covered with a bed of warm leaves sufficient to keep them warm—a protector sufficient to exclude rain being necessary to ensure this. In the case of an inside border see that it is moist throughout by watering, if it is necessary, with tepid liquid manure. Should the Vines have young rods bring their points near the surface of the border in order to equalise the flow of sap and cause their buds to break regularly. Afford sufficient artificial warmth after the house has been closed a fortnight to keep a night temperature of about 50°, that for the day being about 55°.

#### EARLY PEACHES AND NECTARINES.

A house for an early supply of fruit should be closed early in December. In commencing forcing at this date it is necessary, in order to avoid failure, that a house possessed of trees that have been accustomed to being forced early should be made use of, and even in taking precautions of this kind it is essential to take great care not to excite the trees into growth by the excessive



employment of artificial warmth. Commence forcing with a night temperature of from 40° to 45°, with an increase, according to the weather, of from 5° to 10° by day, allowing it to reach 65° from sun-heat, but once the buds begin to move a general increase of a few degrees may be safely allowed.

#### STRAWBERRIES.

The mild condition of the weather has caused pot plants to continue growing late; there must, however, be no further delay in placing them in their winter quarters. We find space for those to be early forced in cool frames, and firmly plunge the remainder in beds of fine ashes, protecting them in severe frost with clean litter or Bracken. The most successful results usually attend plants that are not forced until the new year, but for giving early gatherings of fruit a batch of plants should be introduced into warmth early in December. These may consist of such early varieties as Vicomtesse H. de Thury, La Grosse Sucrée, and Royal Sovereign, leaving the later kinds for subsequent use. Remove old and decayed leaves and the immediate surface soil, replacing it with a compost of good loam made quite firm mixed with fine stable manure and a suitable artificial fertiliser.

Monmouth.

T. COOMBER.

## THE FRUIT GARDEN.

### APPLE RIVAL.

**M**ESSRS. W. CLIBRAN AND SONS, Oldfield Nurseries, Altrincham, Cheshire, are the raisers of this new Apple, which was given an award of merit by the fruit committee of the Royal Horticultural Society on October 9, 1900. It resulted from a cross between Cox's Orange Pippin and Peasgood's Nonsuch. Apple Rival is a large, handsome, and beautifully coloured fruit; even this season, when hardy fruit has been unusually colourless generally, this variety, as we recently saw it, was of remarkably good colour. The fruit is considerably larger than Cox's Orange Pippin, and the rich flavour is very similar to that of the latter, while the flesh is very firm. We should say it is an Apple that would keep well. The tree is described as "a free grower, with upright habit, a good cropper, and well adapted to orchard culture." With such characteristics and an appearance that strongly recommends it Apple Rival should become a favourite.

### HARDY FRUITS IN SEASON.

#### PEARS.

**BARON LEROY.**—This new fruit is well worth attention on account of its good quality. It much resembles a well-grown Chaumontel in appearance, and when grown in bush or pyramid form on the Quince stock it is valuable in November. In Belgium and on the Continent it is a great favourite, and this season our fruits grown on cordon trees have been very good, both as regards quality and size, and young trees are very productive. Of course quality is the test, and it may be stated that in this respect Baron Leroy much resembles the well-known Passe Colmar, a beautiful fruit and a great bearer in a warm soil. In this country the Chaumontel is not a great success in many gardens. In Jersey it is excellent, and my reference to its similarity to the new variety only refers to the appearance and size of the fruits.

**Doyenné du Comice.**—At this season no note would be complete that did not include the Queen of Pears Doyenné du Comice. Though I fear in many districts this variety is past,

they are at their best in the southern parts of the kingdom. My note more refers to the east and northern portion, as the fruits are good well into December. It is very strange how well Comice thrives in apparently unsuitable positions, as this season I have seen some grand fruits in the eastern and northern counties, and there should be no hesitation about planting this good kind in different positions, as by so doing a long supply is maintained. In the south the trees do well in the open. I need not describe the fruit; it is well known, but at the same time many amateurs hesitate to plant some of the best varieties, thinking they are poor croppers. Though Doyenné du Comice is not always a sure bearer, I find by having trees in different positions we get quite as good crops as from other varieties, and in the north and eastern counties the trees bloom later and often escape frost, which cripples those in earlier districts.

**Beurré Baltet Père.**—A very fine fruit when grown on a wall, and most suitable for cordon culture. It is in season at the end of November and the early part of December. Of course as regards quality Beurré Baltet is not equal to Doyenné du Comice, but it is a grand bearer and a Pear of excellent quality. It thrives well as pyramid or bush in the south, but in the north should be given wall culture. We place it in the list as one of our most useful varieties for the season named, and it is excellent for market. For some years I have grown this in place of the softer and inferior Beurré Bachelier, as the latter decays so quickly when ripe, travels badly, and soon shows signs of rough packing. Baltet Père is a firm fruit and freely produced.

### THE BANANA.

An illustration of *Musa Cavendishii* that I send you in fruit—[unfortunately this cannot be reproduced.—ED.]—reminds one that the delicious Banana can be successfully produced in our hot houses at home; indeed, the flavour of fruits thus obtained is generally far superior to that of imported ones, doubtless chiefly owing to the fact that the ripening period of the former is passed under more natural (if one may here use the term) and suitable conditions than are enjoyed by the latter, the majority of which must necessarily be gathered while still in a green state. The number of gardens where Musas are cultivated for the value of their fruits appears to be very limited, though as ornamental foliaged plants they are in much more general request. Summer visitors to the London parks cannot have failed to notice the beauty and effectiveness of them planted out, or plunged below the surface of the ground in some of the more sheltered parts. Many of our warm greenhouses, too, are the richer and more attractive by the presence of these handsome plants. Those of us who have had the pleasure of visiting the sunny south of France will call to mind how the Musas play no insignificant part in the adornment of the unique gardens to be seen there.

Though the large and striking foliage is a most pleasing addition to any sub-tropical bit of garden, it is also tender, and very easily torn and disfigured by cold winds or slight frost. Probably one general reason of the unpopularity of the Musa as a fruit-bearing plant is because of the comparatively large amount of space required to allow of its proper development. With *M. Cavendishii*—the most suitable for this purpose—however, the

above evil is to a large extent disposed of, for the plant shown in the illustration was but rather more than 5 feet high. In a house whose dimensions are 40 feet long by 20 feet wide the centre is occupied by a bed measuring in length 34 feet and in width 7 feet. This is filled with loam well enriched with manure, in which two rows of plants were placed. The side stages of this house are utilised for the cultivation of small plants in variety, and the trellis overhead is partially covered with *Passiflora edulis* and *P. quadrangularis*, both of whose fruits are used for dessert. Night temperatures of 70° to 75° Fahr. during the warmer and 60° to 65° in the colder months are maintained.

The Musa grows rapidly when once it becomes established, and delights in a rich vegetable soil. In about twelve months from the time of planting (presuming that the Banana plant then is from 2 feet to 3 feet high) it should be sufficiently vigorous to produce a bunch of flowers. A great deal depends upon the period at which the flower spike appears as to when the fruit may be expected to ripen. If in the spring of the year the fruit would, under favourable conditions, be mature by the autumn. If, however, the spikes were not produced until late in the year, thus having to develop during the dull and sunless winter months, the Bananas most probably would be small and deficient in flavour when ripe in early spring. A



APPLE RIVAL.

plantation of *Musa Cavendishii*, if given a liberal top-dressing of rich soil annually, will remain in bearing for many years. After having borne fruit the plant dies down, and suckers grow from around the base of it. Unless a large amount of space is available, only one of these should be allowed to develop, which, if vigorous and healthy, may be expected to flower and fruit the following season; some plants, however, need a longer time before they are capable of producing flower-spikes.

A. P. H.

## AMERICAN NOTES.

### SOME PLANTS OF NEW JERSEY.

THE coast region of New Jersey is not specially notable for landscape beauty, being rather flat, sandy, and uninteresting from a scenic point of view, but botanically it possesses much that is interesting and some things that are out of the common.

This section of country seems to be a sort of meeting place between the flora of the Southern States and those that are looked upon as belonging to the North, and in consequence one who is familiar with these things may often make discoveries. One of the most striking features of the



marsh land near the ocean is found in great fields of the Rose Mallow (*Hibiscus Moscheutos*), one such field that I recall with much pleasure being found in the vicinity of Wildwood, New Jersey (a summer resort in the southern part of the State), and covering fully 5 acres and possibly more, the growth of the *Hibiscus* being from 3 feet to 5 feet high, and in the early part of August being a mass of flowers.

The flowers of this *Hibiscus* are large, frequently 5 inches or 6 inches in diameter, and while the predominating colour is pink, there are several distinct varieties, among them being a pure white one, and also a white one with a crimson centre, all of which seem to grow with equal vigour in this natural flower garden.

The Rose Mallow may be readily grown from seeds, and is by no means difficult to cultivate, but the finest specimens are those found in these more or less saline marshes near the coast. And right along the beach, perhaps not more than 100 feet beyond the reach of the tides, we often find the Sea Rocket (*Cakile maritima*), a plant that reminds one of a strong growing white Candytuft, having rather succulent leaves and freely branching in habit.

One reminder of the flora of the more Southern States that is much in evidence in a certain locality on the coast of southern New Jersey is a great number of Holly trees, many of which are wonderfully prolific in berry-bearing, a condition that is probably to be accounted for by their environment, the soil being poor and thin, and the trees so much exposed to strong winds from the ocean that many of them present a singularly stunted appearance. Many of these Holly trees are not more than 15 feet in height, flat topped, with long horizontal branches on the land side of the tree, and much shorter growth on the side toward the ocean, the annual growth being very short and twiggy and the leaves small.

The Hollies in question are mostly located within half a mile of the ocean, and so plentiful are they in that particular strip of woodland that a resort near by has been named Holly Beach. Another somewhat unusual feature among the plants of that latitude is found in the form of a considerable number of specimens of the Trumpet Vine (*Bignonia* or *Tecoma radicans*), a vine that is much more common in the south, and one that is valuable for covering a rustic arbour or to gracefully drape a dead tree, its foliage being but little troubled by insects, while its clusters of orange flowers are very attractive. Then in the swamps, but a few miles back from the shore, there is a wealth of botanical treasures, among them being the Huntsman's Cup (*Sarracenia purpurea*), the most northern representative of the Pitcher plants, the leaves or pitchers of which are beautifully marked with purplish crimson. The *Sarracenia* in question is found growing in a peaty bog usually, surrounded with a bed of sphagnum, and is thoroughly hardy, those plants that are much exposed to the sun generally displaying the most colour in their pitchers, though there are doubtless variations in this plant as there are in the other species of *Sarracenia* that are found growing in the South Atlantic States. Among the minor growths in the same swamps may be found some two or three very pretty Sundews, *Drosera rotundifolia* being the most common, while *Drosera longifolia* and *D. filiformis* are also found occasionally, all of which may readily be naturalised in the bog garden with the *Sarracenia*. In swampy woodland we also find the Rattlesnake Plantain (*Goodyera pubescens*), a charming member of the Orchid family, with leaves well reticulated with white, and though the flowers of this plant are not very striking, yet it is well worth growing for its foliage alone. This *Goodyera* is not very plentiful, and I have never found it growing in colonies, but only as single specimens, and usually located at the base of a tree.

On the outskirts of the swamps several other Orchids are to be found, and some of them are remarkably pretty ones, too. The White Fringed Orchis (*Habenaria blepharoglottis*) and the Yellow Fringed Orchis (*H. ciliaris*) are both found sparingly, and are decidedly worth hunting for, while *Arethusa bulbosa*, with its usually solitary

large purplish pink flower, and *Pogonia ophioglossoides*, that throws up a slender spike bearing one to three pink flowers, are both found quite frequently among the grasses in the low ground, the latter species being variable in colour, occasional specimens appearing that are either bluish or white. And on higher ground, frequently in Chestnut woods, the Stemless Lady's Slipper (*Cypripedium acaule*) is quite common, some of the flowers of this species being very large and beautifully coloured, deep pink being its most common colour, though varieties that are almost white are sometimes found.

In the same locality, or in woods of a similar character, in the month of June, that most singular root parasite known as Indian Pipe (*Monotropa uniflora*) is often found in bloom. This oddity grows from 4 inches to 6 inches in height, and is usually found in clusters, the stem, scale-like leaves, and strange-looking flowers being white and waxy, and altogether uncanny in appearance. The Indian Pipe does not last long, but after forming seeds soon turns black and shrivels up, and a few weeks after its usual season of blooming it would be rather a difficult matter to locate it. I have never seen the *Monotropa* in cultivation, and do not know whether one would be likely to succeed in raising it from seed, nor would it be of any special value unless it were to the managers of some botanical garden who were desirous of making a complete collection of ericaceous plants, to a sub-order of which *Monotropa* belongs. And in the autumn and late summer there are hosts of other and more showy species to be found in the woods and swamps, for example, *Lobelia cardinalis*, *Liatris* or *Blazing Star*, *Eupatorium purpureum*, and others of the same family, the Meadow Beauty (*Rhexia virginica*), all of which may be found before the grand display of Golden Rod and Asters lights up the woodland toward the close of the season.

W. H. TAPLIN.  
*Holmesbury, Philadelphia, Pa.*

## MISCELLANEOUS.

### NOTES FROM THE EDINBURGH SHOW.

MUCH interest is always excited by the contest for the City of Edinburgh Cup, now called "The Victoria Memorial," value £20, with £10 added, for twenty varieties of Chrysanthemums, three blooms of each, arranged in vases. There were seven competitors this year, two of whom were from England, one from Ireland, the rest being Scottish growers. Between one of the latter, Mr. Luot, Keir House, Stirling, and Mr. Kenyon, Woodford Green, Essex, the real struggle for the cup lay. The blooms of the latter were somewhat wanting in finish, while those of the Scottish grower were remarkable for their high finish and the care with which they were staged, no point being neglected. The result of the judges' deliberations was that Mr. Lunt for the fifth time secured the cup, and Mr. Kenyon had the second prize of £20. In the first prize lot Princess B. de Brancova, a lovely white variety with very long petals, was awarded the silver medal for the best Japanese bloom in the show.

#### MR. GODFREY'S EXHIBIT.

All the way from Exmouth Mr. Godfrey had brought a magnificent lot of blooms, to which the only gold medal given to non-competitive groups was awarded. This contained many of the finest sorts raised by Mr. Godfrey, as well as those of other growers. Apart from the Chrysanthemums, Messrs. Todd and Co., florists, Shandwich Place, arranged the most attractive exhibit. It consisted of a floral display in great variety, such as wedding bouquets, harps, &c., and was, perhaps, most remarkable for the good taste displayed in the choice of colours and their arrangement. It was worthily awarded a prize of £20. A feature of this show consisted of the large number of bunches of Grapes that were staged for a few prizes. Given

a little more encouragement and this late exhibition would rival the September meeting in this respect. Mr. Leslie, Pitcullen House, Perth, carried off some of the chief prizes with the veteran grower Mr. Kirk, of Norwood House, Alloa, who exhibited the finest Muscats seen at Edinburgh this year. Apples were fairly well shown, but the fruit generally was below the average in size, and the chief prizes went to English growers. In Pears, however, the Scotch growers were more successful, fine fruits in the best varieties being staged by Mr. Moir, Rosehaugh, Avon, and others. Doyenné du Comice, Pitmaston Duchess, Princess, Marie Benoist, and Baltet Père being the best.

Vegetables, too, were wonderfully fine. Such Leeks can only be produced in Scotland, and in what quantities they were heaped on the tables, the collections with which Mr. John Waldie, Dollar-beg, Dollar, secured both first prizes being particularly fine. Messrs. Laing and Mather, Kelso, had on view the winning lots of Lym Leek, for which the firm offer prizes, and by Messrs. Dobbie and Co. a large and interesting collection of Potatoes was shown. Samples of a new Scotch variety, said to be the Potato of the future, were exhibited under a protected case by Mr. Scarlett, Inveresk. It is named Northern Star, and along with King Edward VII., another new variety, may be worth the attention of growers. The exhibition was open on the 13th, 14th, and 15th inst., the receipts at the doors being larger by £60 than last year, the total amount taken being about £960.

## SOCIETIES.

### BOLTON CHRYSANTHEMUM SHOW.

THE sixteenth exhibition of this society was held on the 7th and 8th inst., in the Albert Hall. The exhibits throughout were of the usual excellence as generally staged at this show, and the committee to give more room and increased comfort very wisely utilised the spacious upper corridor for the vegetables and other amateur exhibits. On entering the hall the visitor was at once charmed by the fine group arranged for competition which was fully up to the high position gained by Bolton in this particular sphere. For the group 12 feet square, the silver challenge cup, presented by E. T. Crook, Esq., in addition to the first prize, was won by J. W. Makant, Esq. (gardener, Mr. H. Shone), with a combination of much elegance; E. T. Crook, Esq. (gardener, Mr. J. Wainwright), followed with a very bright lot.

For a group of Chrysanthemums and foliage plants, the first prize, which included the handsome silver challenge cup given by J. H. Hargreaves, Esq., was secured by J. Harwood, Esq. (gardener, Mr. W. Burgess), with a meritorious lot of blooms; second, Mrs. Tillotson (gardener, Mr. T. Horrocks). For an artistic arrangement with mirror at back, with a height of 8 feet and depth of 5 feet, the first prize was well won by James Musgrave, Esq. (gardener, Mr. J. Abbott), with a charming display; Mrs. E. Ainsworth (gardener, Mr. T. Travena) was second.

#### CUT BLOOMS.

For twelve incurved and twelve Japanese, distinct, the first prize (accompanied with a ten guinea silver challenge cup presented by J. Edge, Esq.) was won by E. Ellis, Esq. (gardener, Mr. J. Davis), with a fine stand, Japanese especially being good; W. Holland, Esq. (gardener, Mr. W. Barber), Liverpool, was a good second. For twenty-four Japanese not less than eighteen varieties, Edward Evans, Esq. (gardener, Mr. C. Jones), Spital, led with a good stand; Mr. W. Barber was again in the second place.

For twelve vases of flowers with stems not less than 15 inches long, Mr. H. Shone was the winner. For six vases, Mr. T. Horrocks was successful, and for one basket Mr. J. Mosley was the victor.

For six large flowering Chrysanthemums (the silver challenge cup presented by W. Grierson, Esq., being added to the first prize), T. Walker, Esq., had the premier lot, followed by Mr. H. Shone.

In the local classes for twenty-four cut blooms, twelve incurved and twelve Japanese, first prize (with a silver cup presented by the president, W. H. Lever, Esq.), was secured by W. Echerley, Esq., with a fair exhibit. For twelve incurves, E. T. Crook, Esq., was the winner, and for twelve Japanese, G. Shaw, Esq. Other first prize winners in this section were Messrs. W. Grierson and J. Musgrave.

The leading prize winners in the vegetable classes were Messrs. R. Fairhurst (who secured the bronze medal of the Royal Horticultural Society), W. Barnes, B. Barlow, and J. Bromilow.

Amongst the miscellaneous exhibits was a fine exhibit of cut blooms by Mr. Norman Davis; Messrs. W. Wells and Co. contributed an excellent stand; Mr. W. Westwell, Bolton, sent a collection of greenhouse, flowering, and foliage plants; Mr. Peter Leigh, Bury, Palma, &c.; Messrs. Caldwell and Sons, Knutsford, Palms, Heaths, Begonias, &c.; Mr. John Robson, Altrincham, Cattleya labiata, Cypripediums, Bonvardias, &c.; and Mr. House, Bristol, his well-known types of Violets. The arrangements, as usual, were most satisfactory under the supervision of Mr. R. Smith, chairman; Mr. H. Shone, treasurer; and Mr. Herbert Makin, secretary.



# THE GARDEN

No. 1620.—Vol. LXII.]

[DECEMBER 6, 1902.]

## A GENERAL LETTER.

"VIATOR" writes the following interesting letter:—

### ROSES IN AUTUMN.

It was with pleasure that I read your refreshing remarks about Roses in autumn in *THE GARDEN* of last week, and I hope they will wake up secretaries of exhibitions without original ideas to a sense of their duty towards the long-suffering patronisers of their displays. The National Rose Society I have always regarded as a pleasant body of devoted amateurs, actuated, not so much with a desire to make Rose exhibiting popular, as to teach a much-to-be-pitied public that lovely varieties are waiting to be planted in their hungry-looking plots. Why this beneficent society, with a hallowed past, and a delightful future—for anything connected with Roses must be delightful—has not instituted an exhibition in autumn passes even my somewhat dull comprehension. I will therefore tell the readers of *THE GARDEN*, a journal that has done so much to foster a love for garden flowers of all kinds, about my Rose garden this autumn. It has shed its sweetness over the whole village, and the Rose garden of so-and-so has become a kind of Mecca of the surrounding inhabitants, not without a strain, let me tell you, on the patience of the proprietor.

It is one thing to own a garden and another to keep in remembrance the fact that it really is a private possession. When the sun of early spring steals across the garden, and the Daffodils open their golden chalices to drink in the warm rays, then the neighbours and those who are not neighbours ask to see the flowers, sometimes with good intentions, but also sometimes to pass away an idle hour, till one loses patience, and exclusion becomes a dire necessity, except to those who are welcome because they wish to learn and spread abroad in their own villages the sweetness they have discovered in my, as they say, and I suppose it is true, "interesting retreat." So ye who own small gardens where the visitors cannot lose themselves be wary of the idler and the lady who declares in one's very presence "that all is perfectly charming." Thanks so much for a pleasant afternoon." I have heard that said of a girl's tea-party.

This is a sad digression, because I am going to write about autumn Roses, a letter from a Berkshire garden near the river, so I hope the editor will pardon its length, as the subject

of Roses is enticing, and once entered upon the pen runs away with all proper restraint. The leading article last week was about Roses in autumn, an excellent heading, and one that emphasises the great beauty of our national flower in the month of Starworts and Flame flowers of Golden Rods and ruddy leaf tints.

Sometimes, alas! after the first breath of frost comes the smell of putrid vegetation. I have an honest love for the Geranium. Its dashing sunny colouring appeals to me, and if it would only behave itself when winter touches its leaves all would be well, but it gives in at once, leaving the Roses fresh and smiling as if the frost were merely the low temperature of a summer night. It is foolish for those readers who only grow a few July Roses to declare this to be exaggerated talk, for I have gathered flowers in December as sweet and dainty as anything seen in the garden in the fulness of summer. Till late in October the following varieties were not only in flower, but with countless buds to open, their future life depending of course upon the climate. As I notice several of your correspondents desire a small list I will give the names of what I consider the

### BEST TWELVE DWARF ROSES.

*Marie van Houtte* must head the list. I have it in all corners, but it never behaves badly anywhere, and its big, delicate flowers poised on strong stems are a joy in early morn when dewed with moisture and in the cool of the evening when distilling their sweetest perfumes. *Marie van Houtte* is sometimes dyed crimson almost with hot suns. Her cheeks then lose their delicacy, and it is only in autumn when the air is cooler and the growth less forced that the petals get firm and the colouring creamy white, with that margin of rose so characteristic of the flower. If I were asked to name one Rose, I mean a dwarf one, for the garden I should vote for *Marie van Houtte*.

*Caroline Testout*.—The more I see of this superb Rose the more devoted I become to its rare qualities. It has been the flower of flowers this year, and in my sunny garden the individual blossoms have surprised those who are accustomed to the giants of a show-board. It has a certain dash about it that charms one, and the big pinkish flowers hang so heavily on the stems that the burden is almost too great. But the stem makes a brave effort to hold up the fragrant burden, and therefore it is not a flower to flop about as if it were ashamed to

show its face. I have just come in from the garden, where I have planted eighteen more of this variety on an upper and very conspicuous border where failures are quickly apparent. There are always certain positions in a garden where failure *must not be*, else the whole place is affected.

*George Nabonnand*.—When Nabonnand gave to the world this Rose he brought joy and comfort to flower lovers in many lands. It is "unsurpassed as a bedding Rose," to quote a well-known catalogue, and its peerless rose colouring, mingled with yellow, and painted on large and beautifully shaped petals, is so beautiful that not a day passes without I pay my respects to a flower so lovely in all its attributes. It is strong, free, sweetly perfumed, and in my estimation should stand next to *Marie van Houtte*.

*Anna Olivier, Edith Gifford, Mme. Hoste, Maman Cochet, and White Maman Cochet* I shall not describe, because they are all so well known or should be. They all have those excellent qualities, vigour of growth and freedom of flowering, not during one month, but from June till late autumn.

*Viscountess Folkestone* must be named in my select twelve, but all Rose growers even on a small scale must favour this famous hybrid raised by Bennett, whose comparatively early death was a loss to the world of flowers. His great work of raising Hybrid Roses was in its infancy. I am mixing this with

*Princesse de Sagan*, which is a crimson Tea Rose, and not one spoilt by a magenta or purple shading. Its flowers are somewhat pointed, but their colouring is so intense and clear that from a distance the Rose is as conspicuous almost as a group of Henry Jacoby Geranium.

*Souv. de Catherine Guillot*.—This has proved a thoroughly good Rose in my Thames Valley garden. Its flowers are given ungrudgingly, and their colouring is very rich—a coppery orange shade, with a touch of carmine.

*Mme. Chedane Guinoisseau*.—I esteem this for its canary-yellow colour, its handsome bud, and wealth of blossom. A bed of it has been exceptionally beautiful through the past autumn.

I give this list of twelve Roses because the Editor is asking for Rose experiences during the year that is fast passing away, and friends and acquaintances are perpetually asking the same question, so in the hope of saving labour, time, and stamps I send my note to you.

As I have headed this "A General Letter"



I may be permitted, I hope, to wander to other topics, and one is the

#### HORTICULTURAL HALL PLANS.

I suppose I must not criticise too freely, as the Editor does not desire any controversy. I agree with him in a measure, but I must express my feelings in respect to the building itself. I have already given as much as I can afford to the fund, and shall perhaps send another contribution, but the building as shown in the plans I can never admire. You likened the glass crection to the barrel of a railway station, but this is hard upon the station. Many a glass roof of a railway station is more beautiful in its proportions than the forthcoming exhibition hall of the society. A grand opportunity has been lost. An elaborate design with sculptured Floras and Pomonas pouring out the flowers and fruits over the earth is not to my liking, but many of the most beautiful and dignified buildings in the land are the simplest.

#### THE WHITE-STEMMED BRAMBLE.

I hope readers of THE GARDEN, and I assure every subscriber diligently studies this weekly horticultural journal, will take note of the illustration and description of the White-stemmed Bramble (*Rubus biflorus*) given on page 379. It is, as you say, "A Winter Picture," and winter is not a season of desolation when the trees and shrubs that colour the woodland then are planted in variety and in groups. This Winter Bramble is a revelation. I have a small colony of it, and the white stems have just the effect in the grey light of a winter day as the waving flowers of Moon Daisy in late September. I notice your correspondent W. Dallimore writes of its beauty on a moonlight night, when its effect is strange and perhaps to certain minds "weird." Then in winter the crimson and yellow-barked Willows and the Dogwood add a ruddy colour note to the landscape. The stems reflect the cool light of the sun, and in the distance a crimson and yellow haze seems to have settled over the plantation. Those to whom winter is a season of gloom and sadness cannot know the trees and shrubs that are its chief glory. I speak not of the fretting of bare branches against the grey sky, but of the things that are full of colour and beauty, and that even flower and smell sweetly.

I am afraid this letter has exceeded all reasonable limits. I have never written to THE GARDEN before, but I feel guilty of selfishness. Are not all your readers workers in the garden, and is it not one's duty to try and help others to gain their gardening experience with a minimum of failures?

[We shall always welcome "Viator's" notes. It is of course our desire to make THE GARDEN as helpful as possible to all interested in horticulture, and the experience of amateurs is frequently of as much interest to the scientist as to the beginner.—Ed.]

#### EDITOR'S TABLE.

##### CHRYSANTHEMUM GOLDEN SHEAF.

From Hampton, Mr. E. H. Jenkins writes: "The enclosed spray of Chrysanthemum is one of the hardiest kinds I know; each year it flowers in mid-November. The variety was raised by myself some five years or so ago, and is the result of crossing the yellow variety of Mme. Desgrange and Admiral Symonds. The latter was the pollen parent, and this is also responsible for the excellent habit of Golden Sheaf. The height is rather less than 3 feet, and the plant has never been grown

anywhere but in the garden, save in its first year. As an effective garden plant the variety is extremely showy."

The flowers are a rich bright yellow, and very freely produced.

##### LAPAGERIA ALBA OUT OF DOORS.

From Oaklands, Dawlish, Devon, Mrs. A. Bayldon sends us a flower of *Lapageria alba* gathered out of doors. Mrs. Bayldon writes: "Among the flowers gathered to-day (November 20) was the enclosed *Lapageria*, gathered from a north wall, outside. Roses, Christmas Roses, Violets, and many varieties of Primroses and Chrysanthemums are fairly abundant, though we have had a terrible gale from the east for four days."

##### NOVEMBER FLOWERS IN SOMERSET.

Mr. J. Crook, Forde Abbey Gardens, Chard, sends an excellent gathering of bright flowers, including blooms of his strain of Border Polyanthus. During the mild weather and mid-November Mr. Crook could gather them in quantity. The flowers of *Salvia Bethelli* and *S. Pitcheri*, which were sent, were gathered from plants that have been in the open ground for two years. *Spiraea Anthony Waterer* was included also. The Polyanthuses were the best of the gathering, however, and for this season very beautiful. The flowers were borne on long strong stems. Mr. Crook has evidently produced a good strain.

##### CHRYSANTHEMUM JULES LAGRAVERE.

Mr. Crook sends from Forde Abbey Gardens, Chard, Somerset, flowers of this excellent outdoor Chrysanthemum. The sender remarks: "I doubt if there is a better one for open air culture," and we agree with him. The flowers are not large, but of a warm glowing crimson colour, rich and beautiful in the cool light of a November day. It seems to defy frost, rain, and wind, and is the most cheerful flower of the open garden during the late months of the year.

##### A NEW ZONAL PELARGONIUM.

From The Gardens, Manor House, Heath, Mr. A. Chapman sends blooms of a new bedding zonal Pelargonium. It was raised by Mr. William Chapman two years ago. The flowers are very pretty, and we could imagine a bed filled with this variety making an excellent display. The blooms we have received are of a salmon-pink, much deeper in the centre than elsewhere. Mr. A. Chapman says in the summer the flowers are of a pretty salmon colour. He considers it to be worthy of something better than obscurity, and with him we are inclined to agree, especially as it is very free-flowering and is easily grown.

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

December 6.—Meeting of the Société Française d'Horticulture de Londres.

December 9.—Royal Horticultural Society's meeting, Drill Hall, Buckingham Gate; House Dinner of the Horticultural Club, Hotel Windsor, 6 p.m.; Mr. Herbert E. Molyneux will open a discussion upon "Rose Growing near Large Towns."

December 11.—National Rose Society's annual meeting and dinner, Hotel Windsor.

December 15.—Meeting of the executive committee of the National Chrysanthemum Society.

December 16.—Annual meeting of the National Dahlia Society, Hotel Windsor.

**The New Horticultural Hall.**—Allow me to express my surprise at the plan and elevation selected for the new hall. In an undertaking of national importance, the very best design that can be obtained should be secured, and I venture to suggest that an open competition for architects would lead to that result. I offer no criticism upon the drawings referred to, but am convinced that better designs both for interior arrangement

and exterior effect would follow if competitive plans were prepared by expert architects, and might suggest that a prize or prizes should be awarded to the successful exhibitors.—JAMES L. WOOD, *Wood Green, N.*

**Apple Rival.**—In the note accompanying our illustration of this Apple, in last week's issue, Messrs. Clibran were stated to be the raisers. Mr. Charles Ross, Welford Park Gardens, Newbury, Berks, however, raised this variety, and from him Messrs. Clibran obtained the stock.

**Eomecon chionantha and Wulfenia carinthiaca.**—These two plants, while growing well with me, absolutely refuse to flower. I have seen recommendations as to the former, both for shady places and in sun, so possibly it is always uncertain. The latter plant I know is a very difficult one to flower anywhere. Possibly some of your readers may be able to state their experience with these plants, as they are both very desirable acquisitions I understand.—S. T., *Haverthwaite, via Ulverston.*

**Nerine Fothergilli.**—"L. M. R.," Jersey, writes that "S. G. R.," Spalding, may be interested to know that she has grown the *Nerine Fothergilli* with great success out of doors for the last two years. She planted them against the house wall, facing due south, and sheltered on either side by climbers. Last year from eighteen bulbs she had seven splendid spikes, and this year twelve: some with thirteen flowers and a glorious colour. The bulbs get thoroughly baked when they are planted in a little bed to themselves under a window, and beyond a little liquid when they began to show bloom have had no special attention.

I have heard many complain of being unable to get *Nerine Fothergilli* and varieties to flower satisfactorily. I may say that we had a grand display of them this autumn, grown in 5-inch, 6-inch, and 8-inch pots. We grow them on a shelf fastened to the back wall of a cool lean-to house near to the ventilators. During growth, which goes on all the winter, we give them very weak manure water. After they have completed their growth, we withhold water gradually and leave them on the same shelf, allowing the sun to shine directly on the pots and bulbs all the summer. This appears to be the secret of success. As they go out of flower they are placed on the shelf again. We avoid over-potting, and give water very carefully when growth commences.—JAMES R. HALL, *Fox Warren Gardens, Cobham.*

**Chrysanthemums of rich colouring.**—Among the many excellent exhibits from trade growers at the recent show of the National Chrysanthemum Society, that from Mr. W. J. Godfrey was specially notable for flowers of the warmer shades of colour. This grower may be justly proud of his introductions of the past season, as they embrace many of the best varieties now in commerce. Superb is *Sensation*, a very large bloom, with flat and broad petals of great substance, deep orange-yellow colour, tinted and suffused a reddish chestnut; the flowers are very weighty and invaluable in severe competition. Godfrey's *Triumph* is remarkable for its rich crimson colour, and is a useful flower when associated with suitable varieties on the show stands. The carmine-crimson colouring of Godfrey's *Pride* and its golden reverse stamps this handsome Japanese bloom as of the first importance for exhibition. Both on Mr. Godfrey's stand and in numerous exhibits throughout the show this variety was frequently seen. A flower in form somewhat similar to the last named is *Exmouth Crimson*; the rich crimson-lake colour on the inside of the fairly broad florets, and the equally rich golden reverse, place this in the front rank of exhibition varieties. The inside colouring of Godfrey's *Masterpiece* was more apparent than in several of the others. This is a brilliant Indian red, with a golden reverse; the flowers are large, spreading, and very weighty. *Bessie Godfrey* is another from the same source; the colour is a pleasing creamy yellow. The flowers may be briefly described as a vastly improved *Mme. Von André*, and the plant is more easily grown.—D. B. CRANE.





BERBERIS (MAHONIA)

JAPONICA (SYN.

BEALI).

**Plum Reine Claude Comte de Atthems Gage.**—This fine Plum is also known as d'Athan Gage, and in Messrs. George Bunyard and Co.'s catalogue it is described as "a delicious late dessert Plum, bearing very freely, and highly recommended." Mr. S. T. Wright, the superintendent of the Royal Horticultural Society's Gardens at Chiswick, considers it to be the very finest dessert Plum for growing in the open as a bush or standard or against a wall. For the past seven years it has never failed to produce a crop at Chiswick, and this year, when there was a failure with many sorts of Plums in the open, this variety, grown as a bush, carried a great crop, while other Gage Plums were failures. It is one of the principal varieties grown by Mr. James Hudson for an early crop in the gardens at Gunnersbury House.—R. DEAN.

**Wall plants.**—When a considerable amount of wall space has to be covered some little care is required in the selection of plants suitable for the purpose and to secure flowers through several months of the year; also with reference to deciduous and evergreen plants, so as to manage that no continuous stretch of wall shall be bare for any length of time. There are many good things

from which the selection can be made; it is not advisable to plant any species or variety whose claim rests solely on the beauty of its foliage, except it may be *Ampelopsis Veitchii*, one or two of the *Vitis* family, and the variegated Buckthorn. I was about to write climbers as the heading of this note instead of wall plants, but there are few *bona fide* wall climbers, and if one were restricted to plants that require no fastening there would be very little variety. Referring again to the selection of suitable plants, very strong growing ones should be omitted if wall space is limited;

*Wistaria sinensis*, for instance, must have plenty of room. We have a plant here covering nearly 2,000 square feet of wall, and a grand sight it is when in flower. This is, perhaps, too much space to allow any one plant, yet there is always a feeling against interfering with grand old specimens so long as they retain health and vigour. The training of wall plants is not always conducted on lines likely to show them to the best advantage. I have seen, for instance, such things as *Ceanothus*, *Escallonia*, and *Choisya ternata* trained and tied in with severe regularity. This is a mistake; it is far better to secure them to the wall and then let them have their own way as much as possible, avoiding encroachment on walks or other plants that may be in the immediate vicinity. Most wall plants like a fairly heavy soil and a deep tilth, and the time of pruning will vary with the different species. Some must be pruned in the winter months, others after the flowering season is over. I should like soon to give a list of the best things on our old walls.—E. BURRELL, *Esher*.

#### ***Pinus canariensis*.**—In

most establishments house room is considered too valuable to devote to the cultivation of the tender species of *Pinus*, but for all that there are a few which are well worth the attention of the decorator, and if better known would doubtless be extremely popular. Of this number *P. canariensis* is a worthy example, for in a small state it forms one of the prettiest pot plants imaginable, and would be of service alike for the conservatory, room, or dinner-table decoration, used either alone or grouped with flowering plants. It is a native of the Canary Islands, where it is found at an elevation of from 5,000 feet to 7,000 feet. It is said to have been introduced about 1759 into English gardens, but through not being hardy it has many times dropped out of cultivation, and has had to be reintroduced. In a state of Nature it is said to grow to a height of 70 feet. The fully-developed leaves are in threes, 7 inches or so long and drooping, the cones 5 inches to 6 inches long, and upwards of 2½ inches wide. It is, however, before the leaves assume their true character that they are prettiest, and that is during the first three years of plant life. In this stage the leaves are 3 inches to 4 inches long, borne singly, densely covering the stem from the roots upwards, and of a beautiful glaucous hue. If cultivated in a warm greenhouse plants twelve to eighteen months old from seeds will range from 12 inches to 18 inches in height, and may be grown in 4-inch or 5-inch pots. These plants if properly cultivated will be well clothed with leaves from the pot to the apex of the stem, and in many instances side branches will be borne, as after the plants have become established in their first pots they are of little trouble. The species is well worthy a trial.—W. DALLIMORE.

**The Fruiterers' Company.**—The clerk to the Fruiterers' Company writes that Mr. Lewis Castle's prize essay on "Gathering, preparing, packing, and profitably disposing of home-grown fruit and vegetables by cottagers and others with small holdings," will be published by the company at a nominal price, and it is hoped and believed that it will form a valuable and useful manual on the subject with which it deals.

## TREES AND SHRUBS FOR ENGLISH GARDENS.

### TWO GOOD KINDS OF BERBERIS.

**M**ANY variable kinds of *Berberis* are very ornamental in our gardens, some as flowering plants and others for their very handsome foliage. In the latter group two of the best are *B. nepalensis*, from Northern India, and *B. japonica*, from China and Japan. The last-named kind is very often met with in southern gardens under the name of *B. Beali*, or even as *B. intermedia*, and its leaflets often take on the most brilliant of yellow or orange-red and scarlet tints late in



BERBERIS (MAHONIA) NEPALENSIS



autumn and winter. The two kinds are quite different and distinct, although for some reason or other they are very frequently confused together in both nurseries and private gardens.

*B. nepalensis*.—This forms a dense bush often 6 feet to 8 feet high in sheltered and half-shady places, its large dark green leaves showing a marked deflection from the stem, especially towards the base of the plant. The leaves vary in length from 12 inches to 26 inches, having seven to nine pairs of leaflets, which are quite separate from each other on the stem, and not imbricated or overlapping as in *B. japonica*. The tone of leaf-green is also very much darker than in the last-named species, and the venation is much more marked or distinctly to be seen. The variety called *B. intermedia* is more like *B. japonica*, but may possibly be a garden hybrid or seedling intermediate between *B. nepalensis* and *B. japonica*, its much shorter rounded leaflets being imbricate at their bases, and their venation more obscure than in *B. nepalensis* type.

*B. japonica* (syn. *B. Beali*).—This is an erect shrub of lax habit, its tallest stems rarely exceeding 5 feet or 6 feet in height. The leaflets are only about half as long as those of *B. nepalensis*, more hastate at their bases, and overlapping so as to cover the leaf-stalk from above in a marked degree. Instead of being coarsely serrated with sixteen to twenty spiny serratures, as in *B. nepalensis*, each leaflet has only five to seven much coarser and stronger spines, somewhat like those of *Ilex cornuta* in general appearance. Its leaves are of a yellowish or Olive green above and of a pale Apple green hue beneath, while the nodal thickenings whence the leaflets spring are much less well marked than in *B. nepalensis*. *B. japonica* often assumes very bright colours in autumn and winter, whereas *B. nepalensis* very rarely or never does so. Both species are very handsome as seen growing on rich warm soils in the south and west of England and in Ireland, but of the two *B. nepalensis* is by far the rarest and most effective of the two.

Other rare and beautiful hardy evergreen Berberis are *B. nervosa*, or *B. glunacea*, from North America, and *B. fascicularis* from New Spain, a very handsome wall shrub with densely clustered Fern-like foliage. All these and several other evergreen large-leaved species were formerly included in a special genus (*Mahonia*), but are now placed under *Berberis* by the best authorities.

Dublin.

F. W. BURBIDGE.

## ROUND ABOUT A GARDEN.

### THE NEW AND THE OLD.

If we had no pretty British wild flowers with pleasant old-world names, there would be less reason to complain that our gardens contain only acclimatised exotics or "florists' flowers"—monstrosities from the naturalist's point of view—with terrible double titles of mongrel Latin and Greek mixed with German, French, and English. If a new and striking flower should be placed on the market next year called *Hocuspocus Mrs. Ponsonby de Tompkins*, we should all hasten to possess it according to our means and show it proudly to our friends. But there would not be much poetry in the invitation, "Come into the garden, Mande, and look at *Hocuspocus Mrs. Ponsonby de Tompkins*."

### FLOWERS OF FASHION.

It is this passion for fashionable novelties—a passion which characterises almost every phase of modern existence, and has relegated the cultivation of homely comfort in life to

remote country places—which prevents us from enjoying our gardens as our grandparents used to enjoy theirs. The owner of a modern garden, unless he be a scientific florist himself, can never feel at home in his garden. He is surrounded by beauties; but most are comparative strangers to him, and of many he cannot remember the names. They are fashionable and expensive, and undeniably handsome; but so are the contents of a West End shop window, whether you see them draped on dummies or displayed later upon the living article at a garden party. Yet there are still men who feel happier among their own familiar friends in simpler clothing; and the parallel would hold good in the garden if we did not allow our hired gardeners to drive thence all the simple old flowers that our fathers loved and called by pet names which were familiar to us all in nursery days.

### SOME SHOWY WILD FLOWERS.

Native British wild flowers especially have been forsaken, yet there is no part of a garden which can give you more pleasure than a real wild corner where you may see growing in natural luxuriance together all the charms of many a country ramble and all the flowers that grace the poetry of the past. Nor need such a corner be at all jungly or devoid of colour. No exotic shrubs can be more brilliant than the British Broom and Furze—the latter unequalled, too, for fragrance and often blooming in midwinter—while the dwarf Furze gilds the ground in autumn in happy contrast with the pinks and purples of Heath and Heather. Amid these the Harebell, properly encouraged, will make patches and pools of blue; while tall spikes of Foxglove, lesser spikes of Moth-Mullein, vivid purple-blue tufts of Bugloss, mauve and blue Scabious, Campions (red and white), Golden Archangel, blue Cornflower, scarlet and pale Poppies, Wild Wallflower, brilliant yellow Corn Marigold, and a host of other common British plants will, if you wish it, give you a blaze of colour bright as any "flower-bed" need be.

### NATIVE BULBS.

Nor need what the gardener would call "the bulb section" be absent. The Wild Daffodil, Snowdrop, Winter Aconite, and Bluebell—as the Wild Hyacinth is best called, so long as you keep the good old English Harebell as the name of the so-called Bluebell of Scotland—are good enough flowers for any purpose; and when you see their gracious clusters richly starring the "wild corner" of the garden in early spring, and recalling the charms of the woods and meadows of their origin, you enjoy, I think, a pleasure equal to any that comes from contemplating the inflorescence of your newest three guinea bulbs, named after some general in the South African war. And apart from pleasant associations of pretty English scenery, can anything be more beautiful in spring than a bank of Primroses or clustered Wood Anemones in the shade? And in autumn you can have the Meadow Saffron and the Autumn Bluebell tufting the sward with purple and azure.

### TENANTS OF THE WILD CORNER.

But the real joy of the wild garden lies in its less conspicuous treasures. A collection of wild British Orchids—the Bee Orchis, Butterfly Orchis, Man Orchis, the common Spotted Orchis, and Marsh Orchis, with their many-shaded spikes from almost white through crimson to dark purple, or even the quaint green Twablad—gives a delightful interest to one nook. In another you may have the Fritillary's netted bells, the Pasque Flower's

curious blossoms, silky without and deep purple-violet within, and the Pheasant's-eye Adonis, scarlet with a black centre. The common Star of Bethlehem may often be seen in gardens, but the far more beautiful drooping kind, sometimes called Angel's Tears by country folk, is seldom seen outside the shady wild glades where it dwells. This should be a welcome fixture in the wild corner; where, of course, all of the five British Violets would find a home. There, too, Ferns of every British kind would be planted, revelling in the half shade of trees with the tall Rosebay and Scented Woodbine. On the dry slope Sweet Briar would flourish with the Furze and Heather, and, if a moist hollow could be contrived, Willow Herbs, Meadowsweet, St. John's Wort, and Purple Loosetrife might be clustered, as we see them sometimes in Nature's own wild "flower-beds." But it would be hopeless to enumerate the—literally—hundreds of quaint and pretty wild plants that one might bring together in the wild corner of a garden, each one perhaps reminiscent of happy rambles in the country, and the whole collectively affording interest and demanding some little touch of care every day in the year. To such a collection the joy of adding new treasures at all seasons never ends.

E. K. R.

## CHRYSANTHEMUMS.

### CHRYSANTHEMUM SHOWS.

IT is a moot point whether, in spite of the fact that most autumn flower shows are chiefly devoted to the Chrysanthemum, there would not before now have been a material decline in popularity and in the attendance on the part of the public were not various other features introduced into them which helps to maintain interest. In the Chrysanthemum we have seen, and happily, too, an almost entire clearing away of specimen plants. They have from the first been generally plant abortions, evidences of misdirected energy. Now there is a growing lack of interest in the common boxed flowers, not only because so very flat and formal when seen in long lines, but also because now from year to year there is so little diversity in size, colour, or form of flowers. Raisers seem to have reached the full length of tether Nature has for them, as what may be called improvements in any features are practically non-existent. In cut blooms the introduction of vase classes has done much to recreate popularity, as the public like to see flowers of any description set up on long stems in vases, especially if a little other foliage be included. The more flowers so shown be included in exhibitions the better for them. There is the merit also that, whilst boxed flowers of necessity must have short stems, that renders them useless for decorative purposes after the show may be over, those on long stems in vases are capital for such a purpose, and may be made useful for some time later. Probably there are many gentlemen who feel that the sacrifice made of their flowers by having so many cut for exhibition is too great, especially as it is the finest and best that is thus removed.

Of other features at late autumn flower shows pot plants of diverse kinds prove very attractive, especially as they help to introduce so much variety as well as beauty into exhibitions. At the recent Kingstoo show we had numerous brilliantly flowered plants of *Begonia Cloire de Lorraine*, that visitors were greatly charmed with, also with double and single Chinese Primroses (some superbly grown and flowered), Bouvardias, any other plants in flower, table plants, miscellaneous groups, fine fruit and vegetables, and, not least, pretty table decorative efforts by ladies, and bouquets, which create so much interest. It is these things at shows that enable visitors to see





IBERIS SEMPERVIRENS VAR. GARRETHIANA IN THE ROCK GARDEN, KEW.

that horticulture is not solely devoted to the Chrysanthemum, and that there are many far more easily grown products that merit all encouragement, and, in many respects, may be far more pleasing than are tall, ungainly plants. Executives of these autumn exhibitions are wise in encouraging all descriptions of autumn or winter products which help to beautify gardens, green-houses, or have enduring uses. A. D.

## NOTES ON HARDY PLANTS

### CROCUS ASTURICUS ATROPURPUREUS.

ONE was glad to see the note by Mr. Weaver on this Crocus in THE GARDEN of the 15th ult., as well as the recent interesting and useful article by Mr. Jenkins on the autumn-flowering species in Messrs. Barr's nursery. I have already said so much in THE GARDEN about these Crocus species and their value that it is pleasant to see some others again referring to them in the terms of praise they deserve. For the alpine garden in particular, where practically all the flowers are perennial and the greater number early-flowering, these autumn Crocuses are simply invaluable. Even in a disappointing autumn, as this has been here, their worth is beyond question. The little dark purple *C. asturicus atropurpureus* is one of the most distinct and one of the best for the rockery or border.

Its colour reminds one of the dark purple Dutch Crocuses of spring, though the flower is much smaller. Mr. Weaver's remark that it is "quite

in the mixed border. This variety lasts long in flower, and is in every way one of our best border plants. A. E. THATCHER.

Aldenham House Gardens, Elstree.

### IBERIS SEMPERVIRENS.

AMONG the many ornamental plants of the natural order Cruciferae that bloom in spring and early summer one of the most useful is the Evergreen Candytuft, with its masses of pure white flowers and dark green foliage. It is equally good in the front edge of the flower border or among boulders in the rock garden. It is also a most accommodating plant, for it is one of those that for several years can be left untouched, the neat healthy-looking cushion of dark green leaves only spreading a little wider year by year. *I. s. garrethiana* differs from the type in having longer racemes and being more floriferous.

### COLCHICUMS AND CROCUSES GROWING DEEPER.

WITH regard to this question, introduced by Mr. F. A. Sturge in THE GARDEN of the 15th ult. (page 339), I think that a good deal depends upon the character of the soil and the depth at which the corms were originally planted. I have found in my light soil that some Colchicums have gone considerably deeper than when first planted, but that others, planted formerly at some depth, have practically maintained their original position. Crocuses, on the other hand, do not show this tendency, and I have no reason to think that *C. speciosus* acts differently from the others. In his "Monograph of the Genus Crocus" Mr. George Maw refers to the subject in connexion with seedling Crocuses, and says: "The seed, under natural conditions, germinates near the surface of

amusing to find what a profound ignorance exists, even among people who devote great attention to gardening, of these autumn-blooming bulbs" is not a bit too strong. They do not know what pleasure they lose by neglecting these beautiful little flowers.

S. ARNOTT.

Carsethorn, N. E.

### PHYSOSTEGIA VIRGINIANA ALBA.

I READ with interest Mr. Jenkins' note on page 363 of THE GARDEN in reference to this plant, and can substantiate all he says in its favour, as we have for some years grown it here and found the white variety quite as easy to propagate and as robust as the type; but what is most surprising to me is that the variety of *P. virginiana* named *speciosa* is so seldom seen or offered in the catalogues.

Where obtainable it is not priced higher than the other varieties, and, as its name implies, is the most showy of all, grows freely about 2 feet high in a good loamy soil, is easily increased, has large purple flowers, and is invaluable for grouping

the ground, but the fully matured corm is rarely found at a less depth than 3 inches, and often occurs 4 inches or 5 inches deep. The small one year old corm is always found near the surface, and it is evident that in the annual process of reproduction it possesses some power of descending deeper into the ground. This would, however, seem inconsistent with the mode of reproduction in which the new corm is found on the summit of that which it replaces; but that such a power is possessed was strikingly illustrated in the above-named experiments on germination." A diagram is given showing a string of empty corm tunics from near the surface, where the seeds germinated, to the actual corms at the bottom of the pot. Maw goes on to say: "The process of the descent of the corm from near the surface to the necessary depth is difficult of explanation, and it must be viewed as one of the many self-protective phenomena in plant life, the *modus operandi* of which we do not understand." It may be mentioned, however, that *C. speciosus* is one of the few species of Crocus which produce their young corms at the base of the old. Is it not possible, however, that there may be some other cause present to account for the disappearance of *C. speciosus* in Mr. Sturge's garden? It is well known that mice are very destructive to Crocuses in some places, and also, though hardly likely to be the case with your correspondent, that grass is often cut too early, with the result that the foliage of the bulbs grown among it is not ripened enough. It cannot be denied, however, that there are some bulbs which have a tendency, at least in some soils, to bury themselves so deeply as eventually to be unable to send their leaves to the surface, or it may be to prevent them from flowering. I have known this occur with *Lilium longiflorum* in my own and other gardens, and *Erythronium americanum* is another case in point. It will be observed that a reference to the subject occurred at the meeting of the scientific committee of the Royal Horticultural Society on the 4th ult. I believe that the proper elucidation of the question would require long experiments under varied conditions of soil, and, it might be, of climate also. S. ARNOTT.

### NOTES FROM PADSTOW.

A WALK through the grounds at Prideaux Place is always of interest. The shrubberies contain some remarkably fine examples. Here *Cotoneaster frigida* makes quite a tree fully 40 feet high, and the branches are weighed down with masses of scarlet berries. This species should be planted more often, for it is very attractive during the flowering season as well as in the autumn. Its white flowers are very freely produced in cymes. If the shrubs are required to fruit when young they should be severely pruned for a couple of seasons.

*Pittasporum undulatum* is in luxuriant growth; one specimen near the conservatory is quite 25 feet high, the black twiggly stems and shining undulated leaves are very striking. Near by is the finest *Griselinia littoralis* I have ever seen. It is fully 20 feet in height and as much through.

Mention must be made of the famous *Magnolia grandiflora* which grows up one side of the mansion. At this late date it has open flowers and buds in plenty. *Garrya elliptica*, so common and useful in and around London, is such a rarity in North Cornwall that its presence was greeted with welcome surprise. Cornwall is, *par excellence*, the place for *Benthamia fragifera*. At Prideaux Place it is an immense shrub; one large specimen flanking a courtyard was bright with fruits, and seedlings spring up amongst the cobble stones at its base. In the dell I noted fine clumps of the variegated New Zealand Flax (*Phormium tenax*). Being so near the sea conifers do not thrive, the salt spray proving very injurious to them; but, as may be expected, *Escallonia*s do remarkably well, the comparatively rare *E. floribunda* (syn. *E. montevidensis*) is represented by a fine example. Mr. Brown remarked that cuttings of this species root with difficulty.

The flower garden was still bright with *Lobelia cardinalis*, *Cannas* in variety, and 5 feet high pillars.



of pink Ivy-leaf Pelargoniums. The kitchen garden is well stocked and in good order. Amongst Peaches Amsden June and Sea Eagle are thought highly of. The kinds of Apples which do best are Bramley's Seedling, Stone's Apple, Devonshire Quarrenden, Northern Greening, Adam's Pearmain, Cox's Orange, and Ribston Pippin. The foliage of these two latter kinds suffered badly this year from the cold spring winds. Mr. Brown, the capable gardener at Prideaux Place, is probably the best Grape grower in North Cornwall. In the late vineries a splendid lot of Grapes were hanging. Especially fine were Mrs. Pearson, Black Alicante, Mrs. Prince, and the old Barbarossa. The ripening foliage of this variety was brilliant in colour.

An up-to-date collection of Chrysanthemums is housed in the early vineries. They are a good healthy lot of plants, each bearing five or six very good blooms, this method of growing having been found to produce more useful results than when fewer and larger flowers are obtained.

A. C. BARTLETT.

## NOTES FROM SWANSWICK.

### SINGLE CHRYSANTHEMUMS.

It is claimed by the raiser, or the vendor, or both, for Edith Pagam that it is the best single Chrysanthemum ever sent out, and certainly, for outdoor use, this variety is very charming. It must not be judged by the first blossoms, which, in this garden at all events, opened slowly and of a bad colour; later on the colour warmed up, becoming a very pleasing bright rose, streaked with a lighter shade. The flowers are very large, of great substance, perfectly round, with a showy centre, and well above the foliage. The habit is stiff and sturdily upstanding, and the plant and flowers resisted day after day a fine soaking rain that reduced some of the Japanese to pulp and miserable abasement. This season has been an excellent test of endurance for hardy Chrysanthemums. First they were seared by bitter east winds, which for the past few years have been prevalent here all through April and May; then, for a very short time, they were dried and baked; then came incessant drizzling rain, and grey weeks without a ray of sun. Lemon Queen stands the wet famously, and I shall give this type of flower, with the singles, preference over thin narrow-petalled sorts in future. The narrow-petalled whites, especially, that turn pink at the back the moment they get really wet, and afterwards hang determinedly head downwards, are useless in rainy seasons like this. Helianthus Miss Mellish is one of those things as easy to introduce, and as hard to get rid of, as a good-looking governess in a house full of grown-up sons. The running power of this plant surely exceed those of the rest of the family, none of whom are backward in increase. A market for bits of root at half-a-crown a dozen ought to make a quick and easy fortune for people who advertise it.

I am pleased to see praise of *Linaria alpina*, for a small tuft of it in our old garden was becoming a very charming thing when we left it. It had been planted on the top of a bank consisting of absolutely nothing but sticky yellow gravel with stones, and was spreading rapidly, perfectly at home in this unpromising medium. The flowers showed up with a very sweet gaiety and much freshness against the deep green leathery leaves, in their neat tufted spread, and their colour, bright lilac and orange, was delightful.

Does anyone know a Moss Rose called Emmeline? I have searched for its description in vain, and as I have become possessed of six bushes I should like to know whether it is of

any value. Another Rose I am desirous of tracing to its source and taking up the character of is Chapeau de Napoleon; and yet another, Pius IX., both, I believe, being Hybrid Perpetuals. It seems a pity that

### FUCHSIAS,

as indoor plants, have gone so much out of vogue. They—or rather the modern or improved forms—are really very beautiful, much more so than many plants that give a great deal more trouble. Mrs. Rundle—a somewhat long-flowered variety, in two shades of red—is an everlasting bloomer, and very pleasing in colour. It began to flower here in June, and went on until October without the least cessation; it then took a short rest, which might have been due to some error of treatment, but by October 20 it was in full beauty again, and is so still, though the first frost of the season—November 19—has just made itself severely felt in the cold glass gallery where the Fuchsias are kept. Wave of Life, though old-fashioned, is very pretty. It makes neat bushes, and its rather small single blue and red flowers are most profusely produced, and show up well against the gay foliage, the young leaves being of a golden colour. It, however, is not so perpetual as Mrs. Rundle. The Phenomenals are very massive, and Rose Phenomenal in particular, grown as a standard, is always admired, both for the size of its huge double flowers and for their colour—bright mauve corolla and cherry-red sepals. But there is nothing like the floriferousness in these that most of the singles and some smaller doubles possess. Achilles is a showy thing; E. Chopton is nearly as good in size as a Phenomenal, and much freer; and Rupert is extremely good, among the smaller singles, and especially for flowering as a compact little bush in a 5-inch pot. Small bush Fuchsias with round heads, 9 inches or so high, make charming jardinière plants, and are now quite uncommon. No doubt there are many better Fuchsias than those mentioned, as there have been a good many new ones brought out; but all those cited are really worth growing.

M. L. W.

## THE FLOWER GARDEN.

### ALPINE SHRUBS IN THE ROCK GARDEN.

SHRUBS coming under this heading are so numerous that I shall endeavour to give only a small selection of the most distinct, easily cultivated and adapted for the rock and alpine garden. These naturally inhabit either the cold Arctic or Antarctic regions, or are more often the survivors of the glacial flora still to be found on the high mountains of Europe and Asia. When transplanted to the plains with few exceptions they will preserve their character as dwarf shrubs suitable to the rock garden. With few exceptions they are easily grown, and if care is taken that only pot-grown and established specimens are procured and planted there need be no real difficulty with either species. It must of course be always understood that certain plants being partial to certain soils would probably not succeed if planted in those of entirely different composition. Thus a Heath (*Erica*) would never grow in limestone, or a plant partial to limestone would not succeed in peat.

*Alnus viridis*.—A slow-growing plant typical of the high Alps, locally common on the Alps of lower Austria. The leaves are pointed, ovate, glabrous above and pubescent beneath.

*Arctostaphylos alpina*.—A close-growing, deciduous shrub of creeping habit. The leaves are small, slightly serrated, netted and wrinkled,

while the berries are black. On the Alps this species usually grows in high altitudes in peaty soil mostly damp, but I have more than once found it in sandy or gravelly soil. Collected plants are not always successfully grown; they are better when raised from seeds or cuttings. *A. Uva-ursi* is a well known and pretty evergreen of fairly quick-growing habit. The plant is trailing, and has thick and smooth leaves. The flowers are pretty, rosy or white, urn-shaped, and in the autumn and winter are followed by berry-like fruits, red or coral red. Fairly common on the Alps and on most mountains of Europe, also Great Britain.

*Azalea procumbens* (*Loiseleuria procumbens*).—One of the most desirable of alpine shrubs. The plant only attains a height of a few inches, and forms a much branched tufted shrub with small evergreen leaves. The pretty flowers are flesh or rose-coloured, bell-shaped. It grows best in peaty soil and in a fairly moist position. It is a native of mountains of both Europe and North America.

*Chiogenes hispidula*.—A little-known trailing shrub with almost thread-like woody stems and small ovate leaves, light green and smooth, quite evergreen; the branches are covered with small bristles. The flowers are small, white, and in the autumn the plants have white berries. It grows best in a half shady moist position in peaty soil. North America on the Alleghany Mountains.

*Epigaea repens*.—This is one of the prettiest and most distinct of dwarf shrubs. Though it is neither a high alpine nor an Arctic plant, it is sufficiently difficult to manage, and while some grow it with ease and to the highest perfection, in other cases it fails entirely. It is of distinct trailing growth, and the wood is hard and quite wiry, rough, and covered with rusty hairs. The leaves are rounded or heart-shaped. The pretty flowers produced in terminal or axillary clusters, are salver-shaped, white, or more often flesh or rose-coloured, and deliciously scented, hence the North American name Mayflower. It is a common North American plant, growing on sandy plains or hills, either in the half shade of Pine woods or quite in the open. Of the thousands of plants imported every year only a small proportion survive. It is advisable to procure only well-established pot-grown plants, and if once the *Epigaea* is well established and in a suitable spot not likely to be disturbed it will luxuriate and flower freely year after year. It is delightful among hardy plants and dwarf shrubs.

*Empetrum nigrum*.—This somewhat resembles *Azalea procumbens*, though it is not quite so pretty. It is an evergreen of creeping habit, with small, linear-oblong leaves. The flowers are inconspicuous, rose-coloured, and the fruit is black. Easily grown in peat and loam.

*Corema Conradii*.—Closely allied to *Empetrum*, with small leaves like those of *Erica*, and pretty purple flowers with conspicuous brown anthers. Easily grown in sandy soil among stones.

*Polygala Chamæbuxus*.—A pretty evergreen shrub or sub-shrub, with deep green elliptical leaves and yellowish or purplish rather showy flowers. Easily grown on rockwork or border in loam or peat, and is also a good pot plant.

*Rhamnus alpinus*.—A pretty evergreen dwarf shrub, with heart-shaped, elliptical leaves. Flowers small and greenish. On the Alps this shrub grows everywhere in the crevices and on rocks, and is difficult to collect. *R. pumila* is similar in every respect to the former species, but grows more like Ivy over boulders. The flowers are pure white.

*Rhododhamnus Chamæcistus*.—Though not always grown to perfection in the plains, this is undoubtedly one of the most handsome of alpine shrubs. On the Alps it is invariably found in altitudes of only a few thousand feet on moraines with little humus. It forms neat, compact and bushy tufts about 6 inches high, and has evergreen, light-coloured, elliptical, rather small leaves, covered with hairs. The flowers are somewhat bell-shaped, proportionately large, and rose-coloured; sometimes, however, deep purple or pure white.



*Rhododendron*.—Of these there are several suitable kinds; indeed, almost all the small-leaved, dwarf-growing *Rhododendrons* are more or less alpine. The best known are *R. ferrugineum*, growing according to position from 1 foot to 3 feet high, with ovate, evergreen leaves, ferrugineous beneath, and terminal heads of purple, rose, or white flowers. Common on the Alps from 3,000 feet to 5,000 feet altitude. *R. hirsutum* has hairy leaves and rose-coloured flowers. Both these species are known under the name of Alpine Rose to the inhabitants of Switzerland. *R. kamschaticum* was, I believe, for the first time brought to notice by Dr. Regel, and figured splendidly in the "Gartenflora," but even now it is but very little known, although it must be counted among the most showy and distinct of dwarf or alpine *Rhododendrons*. It forms a neat bush of

peculiar wood or bark. The best of the species are *S. caesia*, a dwarf bush with lanceolate glaucous green leaves; *S. sericea* or *S. glauca*, leaves lanceolate, silky, very dwarf; *S. reticulata*, leaves large, glandular, and netted, pale green, of prostrate, slow-growing habit; and *S. serpyllifolia*, perhaps the smallest of *Salix*, of slow and close-growing habit.

G. REUTHE.

### FLOWERS IN THE KITCHEN GARDEN.

A GLANCE at the accompanying illustration of a herbaceous border in the kitchen garden, Trensham Vale, Farnham, Surrey, the home of Mr. Spencer Castle, shows how the more commonplace parts of a garden may be made beautiful with simple flowers.

Mr. W. Harding, the gardener, writes that the Pink forming such a beautiful edging to the border is the variety Her Majesty. The other hardy herbaceous plants which fill the border have only been planted two years, and when the photograph was taken in July last the border, Mr. Castle writes, was a beautiful sight.



FLOWER BORDER IN KITCHEN GARDEN (TRENSHAM VALE, FARNHAM, SURREY).  
THE EDGING IS HER MAJESTY PINK.

about 6 inches to 12 inches in height, and has ovate, hairy leaves, and the flowers are produced on single stems, not in clusters or heads as most of the other species, while they are large, and rosy or rosy purple in colour. It is easily grown in peat, leaf-mould, or even sand, but must have a fair amount of moisture in sunny or partially shady position, one of the most northerly species of *Rhododendrons*, which, however, does admirably in the moist English climate.

*Rubus arcticus*.—A pretty dwarf-growing plant, with a somewhat puny stem, heart-shaped leaves, and large, rose-coloured flowers. It is easily grown in a fairly moist position in loam and leaf-mould.

*Salix*.—These alpine Willows are grown not only on account of their handsome foliage, such as in *S. reticulata*, but quite as often for their

### TIGRIDIAS.

THESE half-hardy iridaceous plants rank high among bulbous subjects for the extreme beauty of their flowers, whether grown in pots for the decoration of cool glass houses or for disposing in groups about the flower garden. The species *T. Pavonia*, from which several garden hybrids have sprung, is a native of Mexico, and this species was immensely popular in gardens a decade or two ago. They grow to a height of 18 inches or thereabouts, according to how the plants are treated, and produce flowers of immense size and brilliancy, attaining under good liberal cultivation 6 inches in diameter and beautifully spotted. *T. P. grandiflora* yields much larger and

handsomer blossoms than the type, being of a brilliant scarlet profusely spotted with crimson. *T. P. albiflora* has a white ground. To grow *Tigridias* successfully the bulbs require an open and rich soil, and the site chosen for them should not be where the sun shines upon them the whole day long, but it should be a partially shaded position, for I find that although two or three hours' sunshine during the day assists materially in expanding the flowers, yet the growth is far freer when the plants are in a partially shaded position—such as the *Gladiolus* revels in will suit the *Tigridia*. Without a doubt a cool rooting medium suits these plants, with two or three hours' sunshine playing upon them during the day. A heavy mulch of decayed Mushroom-bed manure will be of immense benefit in conserving moisture about their roots during spring

and summer when growth is active. The foliage resembles that of *Montbretias*, and like them dies down in the autumn of each year, when they should be lifted and placed in a shed or cold frame to complete their ripening, when the bulbs may be stored in sand for the winter months and kept away from frost. Replanting may be performed in March in the position they are to occupy for flowering, or the bulbs may be potted up in February and gently started into growth under glass, afterwards hardening them off before planting out. Groups or colonies of *Tigridias*, judiciously planted about the grounds, will produce a charming effect, the individual blossoms vying with many of our most beautiful *Orchids*. *Tigridias* may be increased by seeds or offsets, the first-named mode being very interesting. The seed may be sown, when ripe, in summer, and the young plants may remain where sown until the following spring, when they may be dibbled into a rich border and grown on freely. If well grown the bulbs will produce flowers in the third year after sowing.

Stoneleigh Abbey Gardens.

H. T. M.

### WALL GARDENING.

### THE WALL GARDEN IN NOVEMBER.

FLOWERS in the wall garden during November, especially towards the end of the month, after the severe frost we have been experiencing all over the country, are scarce indeed. No flowers, in fact, can be said to have opened during the month, but those still blooming are either stragglers, which were planted late, or strong plants which are flowering the second time, and are as yet unharmed by the frosty weather. *Antirrhinums* and *Pentstemons* are still making a fair show of bloom on the top of a wall where they have plenty of soil and light. *Linaria anticaria*, with its white blossoms and dark maroon under lip, is still in evidence. The double form of *Arabis alpina*, with its large pure white flowers, is in full bloom for a second time at Exeter, and even *Corydalis ochroleuca*, *Polygonum vacinifolium*, and *Erigeron glabellus* are still attractive with a few belated blossoms, but they are the exception rather than the rule, and it is no use to get away from the fact that flowers for this year are a thing of the past; but in a wall garden carefully arranged with a view to successive effects care would have been taken to ensure attractions even during winter. Not in the shape of flowers, perhaps, because these would be possible only under exceptional conditions, but in the matter of colour of foliage much more might be done than is generally attempted. Some wall plants bear foliage of exceptional brightness of colour, which lasts even longer than the flowers, and I will enumerate a few which strike me as being particularly worthy of notice.

*Plumbago Larpenae* has passed out of bloom, but its bright green foliage is just now (the last week in November) very showy. Some of the leaves are flaked or blotched with scarlet; some retain a bright green centre, but have a scarlet margin; while others have turned scarlet or reddish bronze all over, and, where here and there a few of the bright cobalt-blue blossoms are still lingering, the effect is doubly striking by way of contrast.

*Saxifraga Geum* is perhaps more attractive now than at any other time by reason of the vivid contrast in its leaves. Some of these are a bright green, while others are tipped with a fine scarlet, which is most welcome at this dull time of the year.

*Sedum spurium*, with its pink flowers, and its more deeply-coloured variety, *Sedum sibiricum*, have finished blooming, but their leaves are turning a red-bronze colour, not so bright, perhaps, as the last-mentioned *Saxifraga Geum*, but, nevertheless, attractive.



*Arenaria caespitosa aurea* bloomed early in the year, but for a bright golden-yellow colour, most showy at this time, nothing can surpass it. It is suitable for wall or rock gardens alike, and is easily grown and propagated by division.

*Mesembryanthemum uncinatum* is probably the hardest of its tribe, and, though its small pink blossoms no longer delight our eyes, its peculiarly jointed, glaucous stems and foliage are nevertheless attractive, especially if contrasted against foliage of a brighter hue.

*Sempervivum triste* is dark in foliage all the season, but just now it is perhaps at its best, its rosettes of fleshy leaves showing a dark reddish brown colour, which makes a particularly fine background for plants of lighter foliage.

*Alyssum spinosum*, with its fine silvery white foliage, makes an excellent companion to the former, both plants gain in effect by the contrast with the other. The white flowers of this *Alyssum* have long passed away, but its foliage, which lasts all the winter, more than makes up for the loss.

*Sedum spathulifolium* must also be mentioned as an attractive plant for winter effect. Its beautiful glaucous foliage is handsome at all times; when the plant is in bloom it makes a fine background to the blossoms, but now, after the frost, the leaves have become margined with vivid scarlet, which still further enhances its value as a decorative plant.

*Sedum middendorffianum*, too, has turned scarlet in its leaves and looks most cheerful.

*Mühlenbeckia nana* differs greatly from that vigorous grower *Mühlenbeckia complexa*. While the latter is a rampant climber, the dwarf form is uncommonly neat, clinging close to the stones and covering them with a minute carpet of a bronzy brown colour.

Elmside, Exeter.

F. W. MEYER.

## THE ROSE GARDEN.

### ROSE WHITE PET (POLYANTHA)

FOR massing this Rose is well adapted, being then seen to much better advantage than when planted in twos and threes. It is perfectly hardy with us, and is also extremely floriferous, being at its best towards the end of June and the first week in July, with occasional bursts of flower in the autumn. For some years past now I have adopted the non-pruning system, with good results. All that is done is to cut away the old flower-trusses and any dead wood. By following this plan our bed of it has grown into a dense mass nearly 5 feet in height. A surface-dressing of manure is given in the spring,

being sometimes forked in; then, if any shoots need regulating by means of pegs to equalise the growth, they are attended to. Being quite a smooth-leaved Rose it does not show the deposits of blacks for any length of time, as the rains wash the foliage clean. *Perle d'Or* can be grown under similar conditions, and, like the preceding, it is greatly improved thereby—that is from the decorative point of view. It is a fitting companion to *White Pet*, being in addition a more profuse autumnal Rose. I consider that by adopting the non-pruning principle the constitution of these Roses is enhanced and their longevity ensured.

Gunnersbury, Acton.

J. HUDSON.

### ROSE G. NABONNAND.

I WAS surprised when looking through Messrs. W. Paul and Sons' Rose catalogue for 1902-1903 to come across the following note:—"The name of this Rose is sometimes erroneously written George

be very dry no other attention is necessary. In a cut state this Rose is also valuable, belonging no doubt to the *Polyantha* group. Its culture may be briefly stated. Sow the seed early in the year in a gentle heat, pot on into 3-inch pots when ready, and plant in the open in April. Messrs. Carter are to be congratulated on raising this Rose, which by the amateur may be grown to perfection. I have for several seasons past procured seed from them with the most satisfactory results.

Aldenham House Gardens.

E. BECKETT.

### KAISERIN AUGUSTA VICTORIA AND ITS VARIETIES.

CONTINENTAL growers evidently set much store by this Rose, if we are to judge by the number of sports and seedlings, said to emanate from it, which are being distributed this season. Whether any of them are really acquisitions must remain to be proved. Here is the list culled from the catalogue of a leading grower:—

*Frau Peter Lambert* (Welter).—A pink-flowered K. A. Victoria said to be distinctly good. An exhibition Rose of the first rank, a good grower, and continuous bloomer.

*Frederic Hanns* (Welter).—A yellow K. A. Victoria, a robust grower, with very fine deep orange-yellow centre.

*Goldelse* (Hinner).—A dark golden-yellow sport from K. A. Victoria, large, full, and sweetly scented.

*Gustave Sobry* (Welter).—A cross between K. A. Victoria and *Comte Chandon*. Colour, reddish yellow shading to clear yellow. A vigorous and continuous

bloomer, with long pointed buds and large fragrant flowers.

*Perle von Godesburg* (Lambert).—A golden-yellow sport from K. A. Victoria, said to be very promising. From this list it would appear that there is quite a keen competition in the production of a really good yellow Kaiserin Augusta Victoria, and it is to be hoped that one or other of these recently announced varieties will supply this want.

A. R. G.



ROSE WHITE PET IN THE GARDENS, GUNNERSBURY HOUSE, ACTON.

Nabonnand; the above is the correct form, G. being an abbreviation of Gilbert." I notice, however, that your well-informed correspondent "Philomel," usually writes this name as George Nabonnand, and under this name there is an illustration of it in *THE GARDEN*, Vol. LVIII., page 226. It would be interesting to know whether Messrs. Paul base their assertion on the authority of Messrs. Nabonnand.

A. G.

### CARTER'S ANNUAL ROSE.

AMONG the recent additions to our garden this is certainly one of the most noteworthy. I suppose the name Annual Rose was given on account of its flowering nine months after the seed is sown. As time advances it grows into a compact bush about 3 feet high and as much in width, and all the summer and autumn flower clusters are produced in the wildest profusion. The flowers vary considerably in colour. Some are pure white, while others are tinged with pink, and some a deep pink. On our clay soil here it succeeds well. Planted as isolated specimens or massed together in the shrubbery it forms an attractive group, and if room can be found in the rock garden it is a splendid subject. Little if any pruning is needed, and beyond an occasional watering should the weather

### SELECTIONS OF ROSES.

(Continued from page 328.)

#### NINE BEST BOURBON ROSES.

Now that autumnal blooming Roses are so much admired the sturdy Bourbons will attract even more attention than hitherto. They can be highly recommended for planting in somewhat bleak localities together with the best of the Hybrid Perpetuals. Nine of the best are:—

*Acidalie*, blush; *Armosa* or *Hermosa*, deep pink; *Kronprinzessin Victoria*, milk-white; *Lorna Doone*, carmine; *Mme. Isaac Periere*, rose; *Mme. Pierre Oger*, white, shaded lilac; *Mrs. Paul*, pinkish white; *Queen*, buff; *Souvenir de Malmaison*, flesh.



## SIX BEST HYBRID SWEET BRIARS.

The popularity of these delightful Roses shows no signs of diminishing. There is not perhaps sufficient individuality in some of the varieties, and if one selects six from the sixteen these would comprise all the most distinct. The following are recommended:—

Amy Robsart, rose; Anne of Geierstein, crimson; Brenda, peach; Flora McIvor, rosy white; Green Mantle, rick pink; Lady Penzance, copper.

## NINE BEST HYBRIDS OF ROSA WICHURIANA.

There are so many ways in which one may employ these lovely Roses that a somewhat large selection seems warranted. Doubtless raisers will obtain even more remarkable colours. The best nine are:—

Alberic Barbier, creamy white; Dorothy Perkins, soft pink; Gardenia, bright yellow; Jersey Beauty, yellowish white; Paul Transon, rose; Pink Roamer, pink; René André, saffron yellow; Ruby Queen, brilliant carmine; wichuriana rubra, bright red.

## AN ARTIST'S NOTE-BOOK.

## SMILAX ASPERA.

ALL who have lived or travelled in the region of the Mediterranean basin must be familiar with this graceful climbing plant, for its distribution is wide throughout that region, and its habit is so distinct that, except for one small Algerian *Aristolochia* which somewhat resembles it, it is hardly likely to be confounded with any other plant.

It climbs mainly by the aid of the prickles on the stems, but the backs and edges of the leaves are also prickly, helping to sustain the plant as it scrambles over rocks and bushy growths. The form of the leaf, though usually that of a broad lance-head, with distinct shoulders, is extremely variable both in size and shape, for though usually of the broad lance-head pattern, it is sometimes like a wild Ivy or *Convolvulus* leaf. We have a drawing from life of one leaf as much as  $4\frac{1}{2}$  inches long by 4 inches wide, another where the breadth of 3 inches taken across the wide round shoulders exceeds by 1 inch its length of 2 inches. In this leaf, though the shoulders are so round and wide, the point of the leaf forms a nearly exactly equilateral triangle for the last three-quarters of an inch.

On this point Mr. Daniel Hanbury says in his "Pharmacographia": "The common *Smilax aspera*, L., of Southern Europe is a plant which presents such diversity of foliage, that if, like its congeners of tropical America, it were known only by a few leafy scraps preserved in herbaria, it would assuredly have been referred to several species."

This pretty plant bears an axillary spike of small fragrant whitish flowers, which are followed by a bunch of Red Currant-like fruit. The leaves are sometimes marbled or spotted with dull white markings. It is a plant that, though common, is always interesting and pleasant to see, and we may enjoy it in our home gardens against a warm wall in the southern counties.

Its near relations of the tropical regions of Central America and the West Indian Islands yield the sarsaparilla of medicine.

*Smilax aspera*, which is a true *Smilax*, is not to be confounded with the plant so-called in flower shops. This is not *Smilax* at all, but *Myrsiphyllum asparagoides*. The popular name *Smilax* for this plant originated in the United States, no doubt on account of some likeness of growth and habit. The name, though misleading and only of recent origin, seems to have become fixed in the language, and is another example, of which a few exist already, of the botanical name of one plant being used as the popular name of another.

## RECOLLECTIONS OF A SUMMER GARDEN.

"Will spring return  
And birds and lambs again be  
gay,  
And blossoms clothe the Hawthorn spray?"

Now, in late autumn,  
gazing round the wind-swept garden shorn of  
its glories I remember

midsummer days spent under the shady trees, a cool shelter from the blazing sun, whose passing rays are welcomed so gratefully now. Of one day, spent in this Derbyshire garden, I think with particular affection. It was real summer weather. The clouds had been blown away by a light breeze, which gently rocked the trees in the old garden and stirred the tall grass bordering the Hay-field. There was no sound of plough or scythe, for it was Sunday; fields and garden were undisturbed alike by the delving hands of the gardener or the busy Haymakers. A hush was over everything, restful to the mind of one whose past Sundays had been spent "parading in London and masquerading," as Wordsworth quaintly puts it. Birds talked quietly to each other, and only a cuckoo, forgetful of the month, called loudly to his mate, all unaware that his duty was to "give us a tune in the middle of June, and then to fly away." Since



SMILAX ASPERA, SHOWING VARIABILITY OF FORM.

(From a drawing by H. G. Moon.)



morning service in the tiny grey church beyond the village street the day was spent in the garden in profound content, grateful for the heat which made up for the sunless days of the past week. The flower-beds on the lawn were a blaze of Roses, deep pink La France, crimson Duke of Edinburgh, and orange Allen Richardson. An impertinent Field Poppy had planted himself in the Rose border. He had apparently walked out of his lawful corner by the dining-room window, not liking his company there and being a pushing fellow. In this most charming of gardens an ancient red brick wall divides vegetables from flowers. In the widening spaces made by falling mortar (assisted by sharp beaks) were the remains of tiny nests built last spring. The border beneath was full of brilliant colour. More Roses climbed the wall, peeping over to look pityingly at Beans and Potatoes that flourished on the other side, and Ivy clung to it. Blue Larkspur and tall Foxgloves formed the border, a background to white Pinks and clumps of Pansies, purple, yellow, and white. The rain of the last few days had hurried on the Lilies, for the buds already showed white through their light green sheaths, and I could almost smell the Lilies in advance. Further on were masses of dark red Snapdragon, and whole chimes of Canterbury Bells, blue and white. At the corner, where the path turned off through a trellised archway into the kitchen garden, stood a huge Lavender bush, which was only waiting a while to make the air sweet and drown all other scents.

Derbyshire is a county of beautiful trees, and this particular spot is no exception to the rule. This garden is all on different levels, and on the sloping lawn stands an enormous Copper Beech, towering over the Cedar next it. The Beech was (on the day of which I write) a mass of bronze leaves and shapely branches. The drive is bordered by rows of big Planes and shady Limes, while Chestnuts will soon shoot up from slender saplings and eclipse their older companions. Seeing this wealth of leafy branches, it is easy to believe the old legends of the dryads who live in trees and who die when the trees are cut down or injured. I can imagine dainty fairies clad in green descending at night from these trees to dance on the lawn. Perhaps the soft fall of leaves heard through the stillness of a summer's night may be caused by fairy feet treading the branches. Beyond the garden proper are Hay-fields. The Hay had just been carried that midsummer day, and was already piled in sweet smelling stacks for winter use.

The gardener had been complaining sadly of the rabbits, who had come from the fields in the night and eaten the plants in some beds that he was depending on to render the garden cheerful, when Roses and Lilies and other summer joys should have departed. He prepared a wiry welcome for them, however, in the shape of stiff fencing to surround the cherished flower-beds. At the bottom of the field nearest the house are two ponds, the home of duck and waterhen. In the thick reeds by the bank lived a thriving family of coots, tiny black objects with scarlet heads, who paddled behind the parent bird like little steamers on a gigantic lake. By now they have lost their smart red caps and put on white ones, which are not nearly so pretty. At the other side of the pond a dun-coloured foal kicked up his heels light-heartedly as he galloped round the field, followed by his sedate mamma, who ambled along heavily, flicking the flies from her sleek back with her tail. The foal look absurdly unfinished, as if he had

been hastily sewn into his rough skin. His tail seemed not to belong to him at all, nor did his legs fit. But as I leant over the garden wall, watching his gambols, the shadows began to lengthen over the lawn and a faint chill crept into the air, the blue sky turned to purple shot with gold, and I realised with regret that the glorious summer's day was done.

"The sky is glad that stars above  
Do give a brighter splendour,  
The stars unfold their flaming gold  
To make the ground more tender."

DOROTHY HAMILTON DEAN.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

## PLANTS NOW IN FLOWER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I enclose a list of plants flowering in my garden on the 20th ult., which may prove of interest to some of your readers. The plants in most cases were in full flower, Sweet Peas and Roses being cut daily in large quantities. The garden lies on the east coast of Scotland, six miles from the sea, and about 400 feet above sea level.

Linum rubrum, Papaver bracteatum, P. umbrosum, P. pilosum, Humea elegans, Stocks, Lilium auratum, Echinops Ritro, Helianthus in variety, Roses, great variety and quantity, Spiraea A. Waterer, Cyclamen europæum, hardy Cyclamen, Alonsoa in variety, Scabiosa annual, S. caucasica, Gaillardias, Dianthus superbus, Pinks, Phgelius capensis, Delphinium ann., Nemesia strumosa, Marigolds, Coreopsis grandiflora, C. auriculata, Rudbeckia Newmani, R. tomentosa, and R. laciniata, Eryngium amethystinum, Salpiglossis, Morina longifolia, Gypsophila paniculata, G. prostrata, Matricaria inodora fl.-pl., M. Golden Ball, Centaurea Cyanus, Potentilla, Lobelia fulgens, L. syphilitica, L. cardinalis, Ceanothus Gloire de Versailles, &c., Sunflowers, Alstromeria, Colchicum, Schizanthus, Mignonette, Lobelia (blue), Chrysanthemum burdigeanum, Agatheae celestis, Lysimachia clethroides, Tagetes, Alyssum (pale lemon), Genista tinctoria, Fuchsias, Hydrangea paniculata, Nasturtium, Erigeron mucronatus, Malva moschata, Lavatera trimestris, Michaelmas Daisies in var., Francoa ramosa, Cassia corymbosa, early-flowering Chrysanthemums, Doronicum, Senecio pulcher, Auriculas, Helenium autumnale, Enothera lamareckiana, Pyrethrum uliginosum, Chrysanthemum maximum, Enothera Fraseri, Agrostemma coronaria, Anemone japonica, Dicentra eximia, Statice in var., Aubretia in var., Dahlia Zimpiani, Sedum in var., Pyrethrum The Pearl, Nepeta Mussini, Geum Heldreichi, Monarda didyma, Arabis albidula fl.-pl., Veronica salicifolia, V. subsessilis, V. spicata, V. rupestris, Hemerocallis, Nemophila insignis, Eschscholtzia, Schizostylis coccinea, Violets, Nicotiana affinis, N. grandiflora purpurea, N. sylvestris, Papaver orientale, Clematis, Ageratum, Celsia cretica, Clarkia, Dahlias, Gladiolus, Antirrhinum, Godetia, Montbretia, Phacelia, Larkspur, Carnations in var., Tritomas, Hollyhocks, Sweet Peas, Calceolaria amplexicaulis, Phlox Drummondii, Salvia coccinea, S. Bluebeard, S. patens, Linaria in var., Helianthemum in var., Verhascum cupreum, V. olympicum, Sidalcea Listeri, Verbenas, Gazania splendens, Escallonia, Geranium in var., Loasa aurantiaca, Hunnemannia fumarifolia, Harrison's Musk, Campanula turbinate, C. pyramidalis, C. persicifolia, C. glomerata, Primula capitata, Polyanthus, Primroses in var., and Phloxes.

Preston Hall, Dalkeith, N.B.

C. M. C.

## CARNATIONS AND PICOTEES.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—I have read Mr. Weguelin's letter on the above subject in your issue of October 25 with

much interest. It is doubtless true that good Carnations have been raised in various places, and it is indisputably the fact that a large proportion of the choicest varieties at present in cultivation have emanated from Hayes. This does not, however, prove that every seedling sent out from Hayes is a gem of the first water, neither does it prove that seedlings from other growers are worthless. Yet so unaccustomed has the public become to expect good things, except from Mr. Martin Smith, that they are slow and perhaps unwilling to appreciate the undoubted merits of varieties from other raisers. So keen, however, is the competition nowadays that this state of affairs must inevitably and at no distant date right itself.

I notice Mr. Weguelin, like another West Country grower, is leading a crusade against "dressing." Doubtless the ideal flower requires no dressing, but where is such a flower to be found? Who is the happy raiser? As I understand it, the primary object of a Carnation show is as a trial of skill between more or less experienced growers. I take it that a show is held not so much as a test of the artistic taste of the exhibitors, but as a test of their ability in growing Carnations to the highest possible state of perfection. If "dressing" exaggerates the good qualities of a flower, are not the defects of an inferior bloom likewise brought into prominence, thus emphasising the difference between good and bad flowers and rendering easier the onerous duties of the judges?

When grown to show proportions our best Carnations are perhaps scarcely suitable for vase or dinner table decorations, but the exact opposite is the case in another section to which Mr. Weguelin alludes—I mean the American tree varieties. Here we have a class eminently suited to the decorator's art. They may not have the qualities desired by the exhibitor—the broad, flat, smooth petal of velvety texture is absent, the centres are full and high, a mass of light feathery petals with serrated edges. Yet they have a glorious beauty of their own which must be seen to be appreciated. Their large deep flowers give the appearance of great balls of glowing colour; the calyx never splits; the stem, frequently 2 feet or more in length, is stiff and wiry, and supports the great bloom by which it is surmounted unaided. Most of these Carnations are fragrant and in constant bloom from October to May. Large as they are they never look coarse or heavy, and can be massed in quantity with the best effect.

Let us keep everything in its right place—the show varieties properly dressed in paper collars and the decorative varieties in vases or epergnes with suitable foliage. Why cannot a show be held in winter for English and American perpetuals? Surely it would be a pleasant sight in the dull days of November or December to see the Drill Hall full of these beautiful flowers exhibited "as grown," and I for one would willingly co-operate in the establishment of such an exhibition if one could be inaugurated for next year.

HAYWARD MATHIAS.

Thames Ditton, Surrey.

## SHRUBS FOR A JAPANESE GARDEN.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Would you please give a list of Japanese evergreen shrubs suitable for a Japanese garden? I am making also a collection of spring-flowering Japanese bulbs.

THEODORE WALKER, F.R.G.S.

[We hope the following list will be found helpful:—

*Evergreen Japanese Shrubs.*—*Aralia Sieboldii*, *A. S. variegata*, *Buxus japonica*, *Camellia japonica*, *C. Sasanqua*, *Cleyera japonica*, *C. j. variegata*, *Daphniphyllum macropodum*, *Eleagnus macrophylla*, *E. pungens*, *E. p. aureo-maculata*, *E. p. a. picta*, *E. p. variegata*, *Euonymus japonicus*, *E. j. aureo-marginatus*, *E. j. argenteo-variegatus*, *E. latifolius albo-variegatus*, *E. radicans variegatus*, *E. r. Silver Gem*, *Ilex crenata* (syn. *Fortunei*), *I. c. variegata*, *I. latifolia*, *Ilicium religiosum*, *Ligustrum japonicum*, *Quercus cuspidata*, *Q. c. variegata*, *Skimmia japonica*, *S. j. Foremani*, *Viburnum odoratissimum*, *Clethra canescens*,



*Andromeda japonica*, *Pernettya mucronata* in variety, *Raphiolepis japonica*, *Azalea balsamifera* (syn. *Rollisoni*), *Daphne odora*, *Magnolia grandiflora*, *Osmanthus ilicifolius*, *O. i. purpureus*, *O. i. variegatus*, *Rhododendron Metternichii*, *Benthamia japonica*, and *Berberis japonica*.

*Japanese Conifers*.—*Cryptomeria japonica*, *Cunninghamia sinensis*, *Juniperus rigida*, *Pinus densiflora*, *P. koraiensis*, *P. parviflora*, *P. Thunbergii* (massoniana), *Podocarpus macrophylla*, *P. m. variegata*, *Sciadopitys verticillata*, *Taxus cuspidata aurea*, *Thuja obtusa* in variety (*Retinospora*), *T. pisifera* in variety, *Thujopsis dolabrata*, *Juniperus japonica*, *J. j. aurea*, *Abies Veitchii*, *A. alcockiana*, *A. polita*, *A. brachyphylla*, *A. firma*, *A. Sieboldii*, *A. Tsuga*, *Cephalotaxus drupacea*, and *Juniperus chinensis*.

*Spring-flowering Bulbs*.—*Adonis amurensis*, *Fritillaria japonica*, *F. kamschatkensis*, *Narcissus Iris chinensis*, *I. Kämpferi*, *Lilium thunbergianum*, *Dicentra spectabilis*, *Saxifraga peltata*, and *Narcissus Tazetta*.

am informed that in this respect it is first-rate. My note now refers to its value at this season—November and early December—as a first-rate dessert variety. It is larger than the parent, Cox's Orange, and will certainly have a great future if it crops freely. Intending planters should include it in their list.

G. WYTHES.  
Syon, Middlesex.

## BACK TO THE LAND.

PUBLIC attention of late years has certainly been more directed towards the importance of the minor industries of the land, both in connexion with the garden and the farm, as bearing on the national food supply, and the well-being and happiness of our rural population, than was formerly the case. As one of these minor industries, the Pear, I think, may lay claim to be one of the most important. There has been an impression and a prejudice amongst the English people that Pears of the highest quality cannot be grown in England, but must be sought for chiefly in France and the Channel Islands. It is a fact, I

admit, that the Pears from these places exhibited in our markets and fruiterers' windows are finer in appearance, and sometimes better in quality, than is our English-grown fruit; and it may be reasonably asked if this is so, why is it so? The majority would, I have no doubt, answer this question off hand by saying that the climate of these countries being warmer and more suitable for the growth of the Pear is entirely accountable. Having visited the Pear gardens both of France and the Channel Islands, where I had an opportunity of witnessing the systems adopted of cultivating the Pear by these growers; this by them is reduced to a fine art, to which they devote as much care, attention, and patience as we do to our choicest fruits under glass in England. Not only in the growing of the fruit is this great care manifested, but the same anxious care is given to the harvesting, packing, and the attractive way in which the fruit is placed before the public, resulting in splendid returns in the way of highly remunerative prices. How does the case stand as regards the thought, care, and attention given to the cultivation of the Pear in England in comparison? I grieve to say there is no comparison whatever. In the former countries, as I said before, the subject is of vital importance to the tillers of the soil, and no care or thought is considered too great to give to its consideration, as well as to the selection of the varieties which suit the markets best; and these are reduced to the fewest number in order to simplify and cheapen the work of production.

In England the growth of the Pear has never been taken up in this spirit; indeed, as a commercial article, excepting in Hereford, Worcester, Kent, and a few other counties, where orchards of it exist for the purpose of furnishing fruit for the



LANGLEY BULLACE.

(A new fruit, given an award of merit by the Royal Horticultural Society recently.)

## THE FRUIT GARDEN.

### A NEW BULLACE.

ON November 4 Messrs. James Veitch and Sons, Limited, Chelsea, obtained an award of merit from the Royal Horticultural Society for a new fruit—Langley Bullace.

This was obtained from a cross between Farleigh Prolific Damson and Orleans Plum. The fruits of the new Bullace are the size of the latter, and produced with all the abundance that characterises the Damson. They are ripe early in November and will hang late. After the Damsons and Plums are over, therefore, this Bullace should prove of great value.

### HARDY FRUITS IN SEASON.

#### PEAR WINTER NELIS.

MR. CROOK sends from Forde Abbey Gardens, Chard, a few fruits of this delicious Pear to remind us of its juiciness and refreshing flavour at this time. No winter Pear is more welcome than this; it is not large, but of pretty shape, with quite a rich brown skin, and is a dainty dish until Christmas. No amateur should be without a few trees of Winter Nelis, the best of all winter Pears.

#### APPLES.

*Cox's Orange Pippin*.—In the latter part of November and early in December several of the best dessert Apples are ripe, and the popular Cox's Orange Pippin heads the list. A few words will suffice to note its value. It has so far no equal with regard to quality, and it should find more room in gardens on this account. My experience is that we trust too much to variety and lose sight of flavour.

*Ribston Pippin*.—This is also in season, and is almost on a level as regards flavour with Cox's Orange. On the other hand, Ribston fails where Cox's Orange thrives, the last-named doing well in a young state and as a bush or standard. I advise Ribston to be grown as a bush. Grown thus it does not canker so badly, a fault the Ribston is much subject to.

*Allington Pippin*.—A new variety of great excellence, almost rivalling both the above fruits. It is handsome when well grown, and a certain cropper on dwarf trees. In flavour it is brisker than Cox's Orange, and I find it at its best at this season.

*Charles Ross*.—This has been introduced too recently to note its cropping qualities but I

manufacture of Perry, the Pear has been entirely neglected. Those growers who have taken the subject in hand for commercial purposes on a large scale in this country may be counted on the fingers of one's hands; and even in private gardens not many gardeners have given that time and thought to the subject which is absolutely necessary if the best results are to be obtained. Judging from the few Pear orchards that are still existing in the neighbourhood of London and other districts favourable to the growth of the Pear, our forefathers thought a great deal more of this fruit than we of the present generation do. These trees, many of them are of huge size and great age, and all growing on the Pear stock, and which have received absolutely no attention to speak of in manuring, pruning, or thinning the fruit; and it is from these mostly that Pears are supplied for our poorer markets, and even these half-grown, bruised, and fallen fruits (in gathering they are usually shaken off the trees) command a ready sale at fair and remunerative prices. From the foregoing it is clear that if English Pear growers are to compete with success against French and Channel Island growers, greater care and skill must be applied to the industry. The point as to the relative excellence of English and Jersey Pears was forcibly brought out at the great hardy fruit show held by the Royal Horticultural Society at the Crystal Palace last autumn (1901), where an excellent collection of hardy fruit, chiefly Pears, was exhibited by a Jersey firm, Messrs. Bulerell and Co. Excepting some few odd dishes, where the specimens were larger, the best English samples on view at the exhibition were equal in every respect to the Jersey ones. A revolution in the improved method of the growth of the Pear has been quietly taking place



for years, ever since the Quince has been substituted for the Pear stock for working the trees on. It used to be an old saying (and true enough in those days) that "the man who planted Pears planted for his heirs." This proverb has at present no longer any force, as the Pear worked on this dwarfing stock can be made to yield fruit in half the time it used to take when grown on the Pear stock. The importance of this change, in so materially shortening the time in which the young Pear tree can be made to bear fruit, has already wrought a great change in favour of Pear planting, as well as in the much and generally improved quality of the fruit now seen, as compared with that occasionally exhibited years ago. Another point of importance as bearing on the popularity and the largely extended planting of the Pear, is the fact, conclusively brought out since more attention has been given to the culture of this fruit, that the old belief that a warm wall was an absolute necessity for its successful culture, is a phantom of the past; and the fact proved that a great number of our choicest and best varieties which at one time it was thought could only be grown to perfection against a wall, can now be grown to greater perfection certainly as regards flavour, in the open quarter; and this fact, when better known will, I trust, be the means of multiplying Pear growers in this country a hundred-fold, especially in the warmer counties, where the conditions are favourable. I cannot conceive of any work calculated to give those who engage in it greater pleasure or profit, whether it be the humble cottager, the amateur, or the commercial grower, than the study and practice of the growth and fruiting of the Pear, or one attended with greater satisfaction at the end in the enjoyment of the ripe fruit, or its equivalent in cash returns from the market. A. P. H.

## GARDENING OF THE WEEK.

### THE FRUIT GARDEN.

#### PRUNING PEAR TREES.

**P**RUNING of fruit trees should be persevered with as time and weather permit. Matured horizontal and fan-trained Pear trees upon walls are liable to become encumbered with overgrown strong spurs, which, by producing a dense growth of gross shoots and leaves, exclude the sun and air to a great extent, and either prevent the formation of fruit buds or cause those that do form to be weak and incapable of yielding good fruit. This state of things should be rectified by root lifting, and pruning (which has been recently treated of), combined with the skilful use of the knife, by cutting out the unfruitful strong portions of the spurs, which are usually prominently placed, and also the unduly weak useless parts. The eye of a skilled pruner readily discerns these, but it is advisable in bad cases to let the treatment extend over two or three years rather than severely thin in one season. The young ends of extending branches upon young trees should be shortened in a degree that will ensure the development of suitable branches adequately to furnish the trees, and the young wood which was shortened back at the time of the summer pruning should be now pruned to two or three buds.

#### CORDON TREES.

Any necessary training and pruning required at the present time by this form of tree is most simple to understand, and whether the trees have two stems or only a single one it needs but little explanation. If the varieties most suitable (and some are much more so than others) for this mode of culture are worked upon the Quince stock, and planted in favourable soils and positions, very little trouble further than ordinary pruning will be required, but when worked upon the free stock, especially if planted upon strong soils, some varieties in particular make gross wood and useless spurs, conditions which must be counteracted by root lifting and spur manipulation. Unsatisfactory

stems can be readily replaced by training shoots in their places which emanate from the base of the trees. Trees that have exhausted their soil and are languishing in consequence should be assisted by the surface soil being removed down to the roots and replaced with good loam, freely incorporating wood ashes and bone-meal. We use diluted liquid manure from stables for this purpose, and find it an invaluable invigorator to trees possessed of satisfactory roots.

#### PYRAMIDS AND BUSHES.

The winter pruning of full-sized trees consists in shortening back to two or three basal buds the spurs left long at the summer pruning, and this will dispense with any sappy secondary growths that may have formed, overgrown spurs being at the same time treated as advised for wall trees. Some varieties that bear their fruit chiefly upon the points of short shoots will, of course, require the most desirable of these to be retained in order to secure a crop of fruit. T. COOMBER.

*The Hendre Gardens, Monmouth.*

### ORCHIDS.

#### HYBRID CATTLEYAS AND LÆLIO-CATTLEYAS.

WHERE a large number of these are grown, it is convenient if a house can be devoted to them during winter, and a few degrees more heat maintained, say, 65° by night and 70° by day, for the following reason. With the majority of Cattleya and Lælia species generally it is necessary to modify the temperature and application of water to the roots when the season's growth has finished, in order if possible to prevent the plants again starting into growth, for if a second growth is made, even if encouraged, it is seldom satisfactory. The hybrids, on the other hand, do not need a long season of rest, as is necessary for the species, for when one growth has fully developed they seldom remain more than a few weeks before they again start into growth, thus causing many plants to grow during the late autumn and winter months. If a few degrees more heat therefore are given during that period than necessary for the Cattleyas and Lælias in a resting stage the second bulb will be as fully developed as the preceding one, though owing to lack of sunlight it is perhaps not too well ripened. Where a few hybrids only are grown they should be placed at the warmest end of the Cattleya house during late autumn and winter if the temperature of both ends is equal. A difference of a few degrees is easily made by not opening the ventilators so wide at one end.

Lælio-Cattleya Ingramii (Lælia pumila dayana × Cattleya dowiana aurea).—This is a handsome dwarf hybrid, the sepals and broad petals are rosy mauve, and the lip deep maroon-crimson; it flowers in the autumn and winter, and seldom fails to bloom when the growth has reached its normal stage. Cattleya dowiana aurea enjoys a few degrees more heat than many of the Cattleyas, while Lælia pumila dayana needs less, thus causing L.-C. Ingramii to be a suitable occupant for the Cattleya house proper. It may be grown in pots, pans, or baskets in a light position; the latter is essential, for it is with these brilliant coloured hybrids, as with the species, if shaded too much or grown in houses where a maximum amount of light is not obtained they deteriorate and the true character of their flowers is not revealed. L.-C. Broomfieldense, L.-C. Clive, and L.-C. Normanii are offspring of the same parents as L.-C. Ingramii, which they much resemble both in habit and character of flower.

Lælio-Cattleya Aphrodite (Cattleya Mendelii × Lælia purpurata).—This handsome hybrid of vigorous growth is best grown in pots; it is now in bloom, and the presence of so beautiful a flower is much appreciated at this season.

Cattleya Mantinii (Cattleya bowringiana × Cattleya dowiana aurea).—This in growth and manner of flowering much resembles the former parent, though the flowers are much larger and of better quality. The sepals and petals are rose-purple, lip dark purple with golden veinings. It has just passed out of bloom, and like other hybrids should be kept somewhat drier at the roots during the short time it is inactive. Pot culture is most suitable.

Lælio-Cattleya Bryan (Cattleya gaskelliana × Lælia crispa).—This ranks among the most beautiful of the autumn and winter flowering hybrids. It is very striking in appearance, its crimson-purple frilled lip being its best feature. The sepals and petals are white, faintly suffused with rose. No collection should be without this desirable hybrid.

Lælio-Cattleya Leucasta (Cattleya bicolor × Lælia harpophylla).—This bright little hybrid is now in flower, and though not showy is very interesting and distinct. In growth it resembles Lælia harpophylla; the flowers are about 3 inches across. The sepals and petals are pale orange-yellow, lip light purple, yellowish white towards the apex. This is best grown in the coolest part of the Cattleya house. F. W. THURGOOD.

*Rosslyn Gardens, Stamford Hill, London, N.*

### THE KITCHEN GARDEN.

#### FORCING.

IN large gardens much attention must now be paid to forcing to maintain a fresh and regular supply, and where means are at hand little difficulty will be found in doing so. On the other hand, where such facilities do not exist and the demand is great, it will entail much labour and forethought for the next two months to meet the requirements.

#### RHUBARB.

Owing to the scarcity of the Apple crop in many places, Rhubarb will no doubt be in great demand, consequently large quantities should be got up and heeled in where it can be safely protected from frost and introduced to heat as required. Rhubarb always starts away more freely when lifted with plenty of earth and placed in a dry heat. Moisten the crowns frequently.

#### SEAKALE.

Place good batches of crowns in the Mushroom house about every ten days in the warmest and darkest position. Trim off and tie all the rootlets in small bundles, and store away in a cool place ready for starting into growth in the spring for next season's supply.

#### ASPARAGUS.

is doing remarkably well this year. Mild hot-beds should be kept made up and fresh roots introduced every fortnight to avoid a break.

#### FRENCH BEANS.

Now is about the most difficult time of the whole year to produce these, nevertheless they are generally much appreciated, and well worth the trouble expended on them. Give them a position as near the glass as possible in a strong moist heat. Weak doses of warm manure water should be given to those in bearing every alternate watering, and thoroughly syringe the foliage on bright mornings. Make sowings every fortnight in 7-inch pots. Canadian Wonder is a capital kind for this time of the year; it takes a little longer to mature, but being a robust grower it is better able to hold its own during the short dull days of winter.

#### CARROTS.

No time should be lost in preparing a place for early Carrots. No better place can be given to them than a heated pit, in which should be placed some sweet fermenting material, Oak or Beech leaves being best for the purpose. Use a mixture of light loam, leaf-soil, old Mushroom bed manure, and road grit in equal proportions, which should be made up to within about 10 inches of the glass. Carter's Early Long Forcing is a capital variety for forcing now, as it makes little top, quickly matures, and is of excellent quality.

#### SALADING.

Place plenty of Chicory and Dandelion in heat in quite a dark position, both of which force quite easily and are generally much liked. Blanch Endive as required by tying it up fairly tight when dry.

#### LETTUCE.

Generally none too plentiful during February, but if small sowings of Carter's Harbinger are made now in a mild heat, and pricked out thickly in boxes when ready and kept gently growing, they



may be cut like Mustard and Cress, and make excellent material for the salad bowl.

#### TARRAGON

if not already done, should be lifted, boxed, and placed in a gentle warmth.

Thinly in boxes sow Onions for drawing in a young state, and sow small saladings weekly in boxes under glass.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

### INDOOR GARDEN.

#### ACALYPHAS.

THESE very handsome subjects make excellent house plants. Old and ungainly plants that have useful cuttings on them should have them removed and placed singly in small pots in a sandy mixture of soil and put in the propagating case to root, there will be then no further need to retain the older plants. Root a batch of *Panicum variegatum* for edging the stage. Place five or six cuttings in a 3-inch pot, and keep rather moist in a propagating frame. *Ficus radicans variegata* should be similarly treated. Unfortunately, this plant does not grow so freely as the former, and should be afforded a good bottom heat, and less moisture at the root and overhead. *Ficus elastica* is readily struck from half-ripened growth and buds, but the wood must not be too old. Cuttings of *Abutilons* may also be inserted, selecting well-developed shoots, and place singly in small pots. *Panax Victoriae* and many similar plants may be rooted in batches. Every effort should be made to push all possible propagating forward before the New Year. Such work done now will economise labour at a time when usually all available assistance and space are wanted. Before removing the cuttings let the plants be thoroughly cleansed, using some reliable insecticide for the purpose. We have had the best results from December-rooted plants.

#### CROTONS.

Cuttings put in as previously advised that have rooted satisfactorily should be transferred from the small pots into  $4\frac{1}{2}$ -inch ones. A suitable mixture is one consisting of two parts fibrous loam, one part leaf-mould, and the remaining part made up of wood ashes and sharp silver sand, with a dusting of dissolved bones added; liberal drainage and firm potting are essentials. Keep the plants clean by frequent use of the syringe, and full

exposure should be given to every glare of sun. For established plants when the pots are well filled with healthy roots, liberal feeding is of great advantage. They also delight in plenty of heat and moisture.

#### IXORAS

that are rooted in small pots should be placed into 5-inch ones. Make use of a compost of fibrous peat, to which a little fibrous loam should be added, and plenty of sharp sand to keep the compost porous; give free drainage and press the soil firmly round the roots. These subjects delight in a strong heat and moisture during the growing season. Established plants may have less water and a cooler temperature during their resting season. *Ixoras* are liable to the attacks of red spider, thrip, scale, and mealy bug. To keep these pests in check a safe insecticide should be used, thoroughly washing the foliage and stems.

*Wexham Park, Slough.*

JOHN FLEMING.

## ORCHIDS.

### THE ORCHIDACEÆ.

DURING recent years much attention has been paid to the cultivation of Orchids, and there are now few gardens in England that do not possess some at least. Orchids are most abundant in the hot damp regions of the tropics, where they thrive in the greatest profusion, not always, as in the colder climes, deriving their nourishment from the earth, but being supported by the moisture-laden air.

Few Orchids are of any medicinal value, and though the flowers of some species are highly fragrant, no perfumes are extracted from them; the dried fruit of *Vanilla planifolia* forms the *Vanilla* of commerce, largely used for flavouring purposes.

Although separated from the tropics by hundreds of miles of land and water, yet we too in England have nearly fifty indigenous species of Orchids. Many of them are local and rare, but at least half a dozen species are common in most parts of the British Isles. They grow chiefly on chalky soil, and are most common in Hampshire and Sussex.

The formation of the lower lip of the corolla is

in some of our native Orchises very singular, often resembling certain insects in form, size, and even colour—such as the Bee, Fly, and Spider Orchis. Sometimes the same organ presents a striking resemblance to some of the more important inhabitants of the animal kingdom—e.g., the Man, Monkey, and Lizard Orchis. The same mimicking extends to exotic species. "So various are they in form," says Dr. Lindley, "that there is scarcely a common reptile or insect to which some of them have not been likened."

FRANK GAMMON.

*Hamstead Park Gardens, Newbury, Berks.*

### CATTLEYA LABIATA VAR. AMESIANA.

UNDOUBTEDLY this is one of the most beautiful white forms of *Cattleya labiata* yet found. Messrs. Hugh Low and Co., Bush Hill Park Nurseries, Enfield, Middlesex, introduced this variety, and named it in compliment to Mr. Oakes Ames, of Boston, U.S.A., because, we believe, of its great resemblance in colour to *C. Trianae amesiana*, which Messrs. Low also introduced. *C. labiata amesiana* was given an award of merit by the Royal Horticultural Society when shown by Messrs. H. Low and Co. and by J. Bradshaw, Esq., The Grange, Southgate, N., on November 4. It has pure white sepals and petals, with a true lilac labellum. The plant shown by Messrs. H. Low has passed into the possession of Richard G. Thwaites, Esq., 23, Christchurch Road, Streatham, who makes a speciality of albino forms. Another plant of this variety was shown by Messrs. Low and Co. before the Orchid Society, at Manchester, on November 6, when a first-class certificate was unanimously granted.

## BOOKS.

### Formal Gardens in England and Scotland.\*

—The third part, just published, completes this important work on formal gardens, which we notice is dedicated to Her Majesty the Queen. We reviewed the first and second parts at some length, and readers will therefore already know something of the object and scope of the splendidly printed pages in front of us. That the reproductions of gardens are superb goes without saying, as the work of Mr. Latham is recognised as the finest of our time, and in the three parts there are fifty-two of these reproductions from photographs with seventy-three from the author's measured drawings. We may briefly state that the illustrations consist of entire plans, and photographic and perspective views of existing gardens, together with sketches, measured drawings, and photographs of gates, terraces, balustrades, steps, garden rooms and summer houses, bridges, columbaries, sundials, figures and vases in lead and stone, fountains and ponds, topiary work, &c. Part III. contains photographs of some good and instructive views at Montacute, Wilton, Hatfield, Rockingham and Broughton Castles (Rose gardens), Saffron Walden, Arley Hall, Belton, Levens, Brickwall, Melbourne, Westbury, Groombridge Place, Holland House, Chiswick House, Hampton Court (Herefordshire), Little Compton, Dawley, Fairford, lead figures at Nun Moncton, Yorkshire, lead vases at Wilton House and Chiswick House, lead garden cisterns at Charlton House and Victoria and Albert Museum, also at Enfield Old Park, stone vases from Stoneleigh Abbey, Drummond Castle, West Park and Melbourne Hall, fountains at Wilton House and the Victoria and Albert Museum, stone balustrades at Drayton House, Brympton Manor, Borwick Hall, and Cranborne Manor, wall gateways at Penshurst, Earls Hall, Cold Ashton, and Oundle, and mazes at Somerleyton Hall, Arley Hall, Belton House, and from Hill's "Arte of Gardening," and the Harleian

\* "Formal Gardens in England and Scotland." By H. Inigo Triggs, A.R.I.B.A. Published by B. T. Batsford, 94, High Holborn, London.



CATTLEYA LABIATA VAR. AMESIANA. (Given an award of merit, Royal Horticultural Society, November 4.)



MSS., British Museum, besides a series of carefully drawn plans which are of extreme interest to all students of old English gardens of formal design. Nothing reveals the character of a book more than a carefully selected extract, and we therefore take the following description of Levens Hall, Westmorland, from its pages.

#### LEVENS HALL.

"The old Dutch garden at Levens Hall is probably the most perfect example remaining in England of a garden designed under the Dutch influence prevalent soon after the accession of William and Mary, although, curiously enough, the designer happened to be a Frenchman, but there is certainly nothing French about the aspect of Levens, which was evidently copied almost directly from a Dutch model, and in all their main features the gardens have been handed down to the present day exactly as they were originally designed.

"Levens Hall dates back to very remote days, and was probably built as a border 'pele' tower, of which there are many examples still to be met with in these parts. In 1489 the property was acquired by one Alan Bellingham, and it remained in his family until 1689, when it was sold to Colonel James Grahame, Keeper of the Privy Purse to James II. and one of his most trusted servants, who, after the Revolution in 1689, for political reasons found it safer to live in the North. Soon after becoming possessed of the estate, Colonel Grahame began to make alterations to the hall, and, to create the gardens, he called in the assistance of M. Beaumont, a pupil of the famous French gardener Le Notre. In the house there is an old portrait of Beaumont, whereon is the inscription 'Monsieur Beaumont, Gardener to King James 2nd and to Coll: Js. Grahame. He laid out the gardens at Hampton Court and at Levens.' It is probable that at Hampton Court he worked in the capacity of a foreman.

#### "THE GARDENS

were commenced about the year 1700, and a letter written in 1701, describing a great storm that took place in the autumn of that year, tells of the terrible havoc wrought amongst the newly-planted trees. We are able to form a very correct idea of the appearance of the gardens at this date, for there is fortunately preserved in the house a plan of them dated 1720, which shows that, with the exception of a few alterations on that part of the garden south of the bowling-green, every path and hedge remains as originally planned; this is probably a unique instance in England. Even the topiary work, though, of course, considerably grown, still retains its character, and many of the trees are believed to have been planted when large enough to have been partly shaped into the forms they were intended afterwards to present. . . . Whatever may be one's feelings with regard to the use of topiary work—and many will think it is used to excess at Levens—the old-world aspect and great variety of their different forms, if not beautiful, is intensely quaint and interesting. At one corner stands the King with his crown upon his head, and opposite, the Queen with her arms akimbo; here a crowned lion with a fine tail, there an archway or a gigantic helmet, an umbrella-like construction shading a seat, Queen Elizabeth with her Maids of Honour, and many another creation in Yew standing out with its wealth of deep green foliage amidst the flowers, with walks of soft green turf between the beds. Near by are two quite small enclosures with substantial hedges surrounding them, and overlooked by the old gardener's house, still known as 'Beaumont Hall.' A broad walk separates the flower garden from the kitchen gardens, and at one end is an old Yew arbour known as the Judge's Wig." The price of the three complete parts, in portfolios, is £3 13s. 6d. net; or, bound in half-morocco, £4 4s. net.

**Children's Gardens.\***—We must confess to a keen sense of disappointment in reading this book, and cannot discover any good reason for

its publication. A children's book has still to be written, and we are not sure that such a book is wanted, especially one that treats of such subjects as budding Roses, and certainly all botanical names should be studiously avoided. The book is merely a beginner's guide, and not very good of its kind. The truth is we are getting overdone with works of this nature, mere impressions, without the author showing any real knowledge of the subject. Because one loves a garden that is no reason why commonplace thoughts should be transmitted to well-printed pages bound in a pretty cover. We are sorry to write this, as we feel sure the author is quite sincere; and to a few, those who are personally acquainted with her in particular, the little book may be useful. The child should be taught to love gardening through the flowers of field and hedgerow, and not worried with such a sentence as this: "A charming sweet-scented plant, which will flower on a wall in the winter or very early spring, is *Chimonanthus fragrans*." We feel sorry for the child who has to master such a lesson. Why not, at any rate, tell the child that *Chimonanthus* is "Winter Sweet." On page 11 *Daphne Mezereum* is the sweet-smelling shrub a child should be taught to call the "Mezereum." The use of botanical language might have the evil effect of making the child regard gardening as a mystery impossible to fathom, a school in which simple language is mixed up with names as unfamiliar as Sanscrit; and to give advice about budding a Rose is unwise. In the first place, Rose budding is an operation demanding skill and watchfulness, lest in holding a sharp knife carelessly personal injury is inflicted. If the book had been written with the same feeling as expressed in the following lines, it might have proved a more sensible and worthy production: "Although spring and autumn are the busiest seasons, yet I think I have shown how much you can find to do all through the summer months; but there will be days of idleness too, hot sultry days, perhaps, when you see the leaden clouds coming up, and feel you need not expend your energy in watering, as the heavy raindrops will soon do it so much better. Then it is pleasant to sit and watch the flowers, and the busy bees, and the white butterflies fluttering round. The flowers themselves keep regular hours. They are not wide-awake all the twenty-four hours of each day. Some of them go to bed very early—long before the sun has set they fold up their petals for the night; others wait till the dew is falling, while others choose that time for waking up." Simplicity must always be the keynote of children's books. But we would rather take the child to hedgerow and mead there to receive its first lessons in the lap of the greatest of all teachers—Nature herself. The illustrations are unsatisfactory. One is called "*Phlomis fruticosa* and *Spirea Aruncus*," not a childlike inscription; and we must remind the author that it is *Phlomis fruticosa*. "A Walled Summer House" is not likely to appeal to a child, except to have tea in on a summer day; but we have written sufficient to show that "Children's Gardens" has so many defects that we honestly cannot recommend it.

#### SPRING FLOWER SHOW AT PIETERMARITZBURG, NATAL.

This show was held in the Governor's elegant ball-room on October 16. There was a very fair display and a considerable amount of competition. The readers of THE GARDEN may feel interested in knowing what their kinsmen in this far distant part of the British Colonies exhibit at a spring flower show. Daffodils and the many bulbous flowers we associate with spring flower shows in Britain have no place here. I have, however, induced Mr. J. Medley Wood and his clever cultivator, Mr. James Wylie, to make a start with Daffodils in the Durban Botanic Gardens. Their natural fear of success arises from the winters being comparatively rainless and their summers somewhat wet. Pietermaritzburg is some 2,000 feet higher than Durban, still almost rainless in winter

Yesterday I had a long walk on the hills; the ground was, however, so dry that few flowers were to be seen, but on the way up from Durban were some magnificent specimens of *Brunsvigia Josephinae* with last year's flower-heads still on them. *Cyrtanthus angustifolius*, a most charming scarlet species, was in full flower; and large quantities of the pure white *Drimys*, better known, I suppose, under the name *Sparaxis pulcherrima alba*. This is the prevailing species from the coast line to a certain elevation, when the colour changes to rose, purple, and almost black. Returning to the flower show, occupying one end of the ball-room (the room somewhat dark for a flower show, especially as the day was dull; on a bright day the light might be all that could be desired) was a collection of large well-grown specimens of Ferns from the garden of Sir B. W. Greenacre, K.C.B.

Along the stages on the left from this fine group of Ferns was a small collection of Begonias, mostly Rex varieties; then three competitions for the best six varieties of exotic Ferns. Amongst these were some really well-grown specimens, but rather small. Following were four collections of indigenous Ferns, six species of each, amongst them being some familiar types, but very few of them were well grown. Then a collection of indigenous plants in pans, &c.; they were not at all flattering to the skill of the exhibitor, amongst them *Gilia aurantiaca*, which should make a good pot plant, dwarf in growth, and the flowers a rich orange-scarlet; a small *Albuca*, I could not learn its name; a poorly grown *Clivia*. The others of no account.

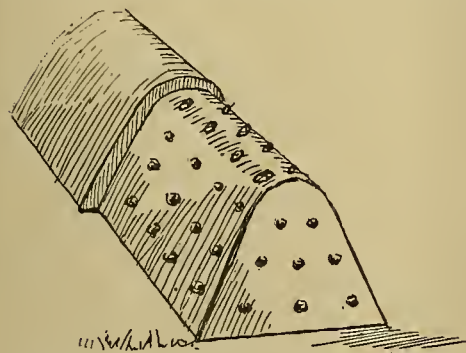
Pansies and Violas in pots and pans, none of them showed breed or cultivation. Then a fine well-grown specimen of the yellow spotted large *Colts-foot*. The novelty of the show, however, was a single crown of *Lily of the Valley*, with two small spikes of fair-sized bells, this being the first time the flower had been exhibited in Pietermaritzburg. Had it been a pot with ten or twelve crowns there would have been some effect. At Durban *Lily of the Valley* will not flower, but in the higher part of Pietermaritzburg evidently it may be got to do fairly well. Three well-grown pans of *Selaginella* were conspicuous. A table of mixed plants, well staged but rather crowded, attracted attention; Mr. W. J. Bell, florist and seedsman, had a good table of assorted cut flowers and plants, amongst the cut flowers being *Lilium Harrisii*, *Mikado* Poppy, *Hunemannia* and many others. There was a good show of *Roses* and many competitors, but there were few really good flowers, owing, I was told, to the unusually dry winter months. Some varieties, however, had stood the drought better than others or had more care, and it was these few good flowers which redeemed the exhibits. Table decorations were not good, but the space limit was against the exhibitors displaying much taste. At Cape Town better results were obtained, as each exhibitor was allowed—as in London—a table. One exhibitor of *Daisies* made a pretty design with these flowers in letters DAISIES, and edged the frame with the same. The flowers were the English Daisy, *Marguerites*, and *Chrysanthemum coronarium*. Ladies' sprays were just passable; crosses and wreaths were generally good; buttonholes for dinner table were also pretty.

An arch and gate ajar were in really good taste, but a double-span arch did not come out at all satisfactorily. Baskets of indigenous flowers; only one of the group showed any taste. It was conspicuous for *Crinum longiflorum* and *Gladiolus aurantiacus*. The collections of Pansies and Violas shown on cut circular papers were very poor in breed and size of flower. Double and single *Petunias* staged on cut circular papers were pretty. *Phlox Drummondii* was generally poor. Some really good specimens of *Shirley Poppies* were staged in glasses. Ten week Stocks very good. A few of the Sweet Williams staged were good. *Verbenas* very poor, which was surprising, as the plant is a great success in Natal. Collections of ordinary garden flowers fairly good and representative, *Mignonette*, *Eschscholzia* all in a glow, *Poppies*, Sweet Peas (not Eckford's fine varieties)

\* "Children's Gardens." By the Hon. Evelyn Cecil. Published by Messrs. Macmillan and Co. Price 6s.



Salpiglossis, Cornflowers, Indian Pinks, Snapdragons, Coreopsis, Cosmos, Gaillardias, Candytuft, Cannas, Larkspurs, pot Marigolds, and white Marguerites were conspicuous; besides these were many others of our common garden annals. Bouquets generally were far too lumpy, both as regards Rose or mixed bouquets. The redeeming features amongst these were three by Mr. J. W. Bell, florist; one, yellow Roses, each flower gracefully drooping, and intermingled with the small



MUSHROOM BED WHEN FIRST MADE AND SPAWNED.  
(The second portion is moulded over with soil.)

Maidenhair Fern, also a graceful spray bouquet, and yet another, to each of which a first prize was awarded.

A collection of wild flowers was staged in glasses, the principal of which were as follows: White Drimia, small cream-coloured Gladiolus, Strelitzia augusta, Gladiolus aurantiacus, Cyrtanthus angustifolius, Burchellia capensis, Senecio concolor, Lasiospermum, Cyrtanthus McKeni, Ornithogalum thrysiflorum, Hedyotis, Crotonaria, Greyia Sutherlandi (Natal Battle Brush), Thunbergia natalensis, Crinum longiflorum, Jasminum, Pink Diarama, Cynium tabulum, a beautiful white-flowered parasite, but, like Harveya, all efforts to propagate it have failed.

There was a small collection of fruit, mostly Citrons. Two dishes of good-looking Strawberries, but the dishes represented the smallest and largest fruit, showing that the exhibitor had no idea of grading, only of quantity. The collection of vegetables was small. Some very good Beet, but Lettuce, &c., poor. PETER BARR, V.M.H.

Pietermaritzburg, Natal.

## THE KITCHEN GARDEN.

### MUSHROOM GROWING IN GARDEN, FIELD, AND COTTAGE PLOT.

**A**MONG the vegetables produced in garden or field the Mushroom is one of the most popular, and this popularity is not confined to one class. The difficulty is to obtain the article in a fresh condition and in sufficient quantities at a moderate price. This latter difficulty places the Mushroom entirely out of the reach of the masses of the people for certainly ten months out of the twelve, as except during September and October, when they are plentiful in some seasons in the fields, the price otherwise is prohibitive, being never less than 1s. per lb., and this not for fleshy, fresh British-grown Mushrooms, but for thin, dry, and hard French ones, only fit for soups and flavourings. It must not be inferred from the above statement that there are no Mushrooms grown in England on commercial principles, as the reverse is the fact, and so much are those fresh Mushrooms appreciated that they are immediately disposed of to regular customers at handsome prices at local markets where grown.

The Mushroom is a native of Britain, and can be grown here to a greater perfection than in any other part of the world, either out of doors in our fields, or under artificial conditions in houses specially prepared, or on the out-of-door system as practised by market garden growers.

With regard to our natural field crops in autumn after a hot summer, followed by warm and heavy showers of rain (on most of our warm and properly drained meadow lands), the valuable Mushroom comes up in generous quantities, and that without the help of man; indeed, as a welcome gift from the lap of Nature, a gift of late years which has helped the farmer more on many occasions to pay the rent than has the ordinary cultivated crops of the farm. It is a moot question, but beyond the province of this work as to whether field Mushrooms cannot be grown profitably, it is well worth a trial, and is a hint to the Chamber of Agriculture and others interested. The cultivation of the Mushroom is dealt with from four different standpoints: (1) The professional or private gardener; (2) the amateur; (3) the market gardener; and (4) the cottager, closing with a few hints as to successful methods of field culture, with a chapter of instructions of how to manufacture Mushroom spawn.

In the homes of the rich there are for the most part the necessary materials for producing satisfactory crops in every season of the year, and managed as these gardens are, by highly trained and experienced gardeners, it would seem superfluous to offer any remarks for their guidance on the growing of Mushrooms. Simple as it may seem to the inexperienced, the Mushroom is an erratic crop. The young horticultural student earnestly endeavouring to qualify himself at some future time, not too remote, let us hope, for a responsible head gardener's position will find a knowledge of Mushroom growing amongst the most useful of his acquisitions, as in good and well-equipped gardens Mushrooms are in urgent demand and expected almost every day in the year, and failure in the supply often makes matters very unpleasant for the gardener. Our first consideration must be the

#### MANURE AND ITS PREPARATION,

the two fundamental principles on which success or failure rests. With regard to the most suitable manure, horse manure is the best, and if good results are to be obtained the manure from corn-fed animals when little or no drugs are given should be chosen. Manure from heavily drugged horses is absolutely of no use for successful Mushroom growing, and this is one of the important points to notice. With regard to stables in private establishments this precaution is not so necessary, but where London or any other city's stable manure is the medium the grower cannot be too careful as to the quality of the manure he has to deal with.

The Mushroom grower must be on good terms with the coachman or the man in charge of the stables, who will separate the manure of sick horses, and in this way prove a good friend. Some stables are provided with a covered roof over the manure yard, and, where this is the case, it will be sufficient if the stable manure is fetched away every three days, and

must be taken away in the rough, long and short together. Where this provision does not exist it will be better to fetch the manure away every day, or at least every other day, and place it in a dry, open shed in the garden, as on keeping rain away from the manure depends much of the ultimate success of the crops. Whether it is decided to clear away the manure daily, every other day, or twice a week, let it be delivered, if possible, into a dry, open shed, where there is a free circulation of air, or, minus an open shed, in some sheltered, dry, and airy corner of the garden, where it can be protected and turned over, and the extra moisture liberated until it is dry enough to place in a heap to undergo slight fermentation. The first thing to do with the long and short manure from the stables is to turn it over with a three- or four-tined fork. A fork of this width will admit of all the actual manure falling through by slightly shaking it, as well as much of the short, littery straw. This is all we want from the manure for the purpose of making Mushroom beds, the long straw being laid on one side for other purposes, when it will be most useful, especially when the market garden aspect of Mushroom culture is dealt with. The next process after the manure is properly shaken out from the rough straw is to lay it out on the floor of the shed at an even thickness of about 7 inches in order to expose it to the air for the purpose of drying, and also to cause a very slow and almost imperceptible fermentation. Every load delivered must be served in the same way, and the whole turned over with the fork about every three or four days in order to liberate any rank gases generated. After undergoing this process for about ten days or a fortnight the manure will be fit to throw together into a large heap to cause further fermentation, thereby reducing the heat of the manure to the temperature of 80° or 82° Fahr., when it will be of a safe and proper temperature to form into beds in the Mushroom house proper or wherever else it may be proposed to construct the beds.

Upon the careful preparation and the proper condition the manure may be in at the time the beds are made up depends to a larger extent than on any other particulars the success or otherwise of the crops. It is a well-known fact that Mushrooms abound in



MUSHROOM BEDS OUT OF DOORS IN BEARING.

nitrogen. It is also well known that nitrogen is found in considerable quantities in the manure of horses, therefore in subjecting the manure to fermentation there is danger if this process is overdone of the nitrogen escaping in the way of ammonia to the great detriment of the manure



and the subsequent crops. The chief lesson to be learnt from this is to be careful to prevent at all costs too rapid a fermentation and the consequent high temperature. By adding, say, two barrowloads of soil to the cartload of manure and well mixed before the manure is formed into a heap for the purpose of fermentation, this mould will answer the useful purpose of absorbing the nitrogen, preventing its escape, and preserving it for the Mushrooms later on. The manure after being placed in a heap as advised should remain so for, say, three or four days. If not overdry when put up three days is sufficiently long enough, but if moderately dry four days is not too long. The safest and best plan is to put a trial stick in the heap, one long enough to reach to the centre, say, 3 feet deep. It should be examined on the second and every subsequent day, and if the stick becomes in any way too hot for the hand to bear the heap must be opened out at once and the manure spread out for a few hours to cool, and afterwards put up again in the same way, and the same precautions taken with the trial sticks, &c., as regards heat, and if still too high the heap must be opened out again to cool and reformed in the course of a few hours as before, when it will be found that the heat will have dropped to about 85° or 90°, and ready for forming the beds. The fact of opening up the manure again in removing it to the Mushroom house will further reduce the temperature a little, bringing it down to about 80° or 82°, which, as I said before, it should be at the time the beds are formed. Before leaving the important subject of the manure let me again reiterate the vital points to observe in its preparation if the best results are to be obtained—rain to be kept off; expose to the air in thin layers in a shed to dry surplus moisture without undue fermentation. When this process has been carefully attended to fermentation afterwards, when the manure is formed in a heap as advised, is much less violent and more gradual, thereby reducing the loss of nitrogen by the escape of ammonia to a minimum. In this way not only are heavier crops of better Mushrooms secured, but the beds will last in bearing half as long again as will those formed from manure which has been overheated and put up wet. The latter conditions are undoubtedly accountable for more failures than most people are aware of. I must here mention that those who aspire to grow Mushrooms under artificial conditions such as we are now considering, and who have only a limited quantity of manure to deal with, must not wait until a large heap is collected together sufficient to form a good-sized bed, because if they do that manure first collected would be overspent and practically useless before a good-sized heap could be got together. Therefore the bed must be made up in small sections at a time as the manure is got ready, and this is really an advantage than otherwise, as a moderate and well-sustained supply is secured rather than a glut at one time and scarcity at another.

#### HOW TO FORM THE BEDS.

The system now under consideration is the one followed in private gardens where a proper house is available for the purpose. The house is generally a lean-to with a north aspect, situated at the back of vineries, &c., or of a garden wall, and no better position could be found. If it is sunk below the ground level so much the better, as being less subject to fluctuations of temperatures and more easily kept in a humid state. The beds should be formed on either side with a path in the

middle, and 3½ feet wide is the most convenient width for the bed. The depth should be 9 inches. The best material to form the beds with is stone, brick, or slate, but not wood or anything perishable. It is then well under the grower's control in respect to gathering the Mushrooms.

(To be continued.)

## FOREIGN NOTES.

### THE DODECATHEON.

THE natural order Primulaceae contains many beautiful plants which are always much sought after by lovers of the garden. They are legion, and, with the exception of a few undeservedly despised and almost forgotten kinds, are all in great request. Amongst this number is the Dodecatheon, a hardy perennial. What grace there is in its drooping flowers on stalks which stand clear of the foliage! The name, derived from the Greek, literally means Twelve Gods. The great botanist, Linnaeus, who first described this plant, alluded to the beauty of the flowers, and to the number generally found upon the same stalk. Of course this is far from being the exact number in every species; we have often counted from fifteen to twenty upon the same stem. The shades of colour are not very numerous, and they vary from red-purple to pure white. The flowers have a vague resemblance to those of the Cyclamen (another genus of Primulaceae), but with this great difference, that the flowers of the latter are isolated.

There are many species and varieties of Dodecatheon; most of them are rather delicate in the North, and require a covering during the winter. Dead leaves or short straw may be used for this purpose; this covering can be kept in position against the wind by branches or by long manure. The plants should be carefully labelled, for they lose their leaves in winter. They should be cultivated in leaf-mould, with the addition of a little earth and sand. A partly shaded position especially suits them. The position of the plant must be changed at least every third year, and the removal should be taken advantage of to divide the tufts; these should be at once replanted in a new and carefully prepared soil, the operation being performed when the coverings are removed in March, or about the month of September. The Dodecatheon is also increased by sowings made in autumn on cold beds covered with frames during the winter. The young plants should be planted out in the middle of April. Although Dodecatheons like moisture it is well to drain the soil in which they are planted, for stagnant moisture may cause the stems to rot.

In a word these hardy plants are not much more difficult to grow than others, provided the gardener does not omit to bestow upon them the trifling care of which we have just spoken. The species which is sometimes still met with in amateurs' gardens is Dodecatheon Meadia. From the centre of its root-leaves springs a stalk some thirty or forty centimetres high, carrying about twelve drooping flowers of a red-purple colour, and with their petals erect exactly as in the Cyclamen. *D. integrifolia* and *D. Jeffreyi* have been used by seedsmen to produce interesting hybrids, of which the names are given below. The first of these bears flowers of a lilac-pink or purple colour, the second has flowers of the colour of carmine.

The following is a list of Dodecatheons known to commerce or in botanical gardens:—

*D. Media* (Lin. North America), divisions of the corolla very erect, purplish pink, with green spots; *D. Media* var. *brevifolium* (Gray), *D. M. lancifolium* (Gray), synonymous with *D. Jeffreyi* (Hortus), Rocky Mountains, larger flowers, bright pink with spots; *D. M. macrocarpum* (Gray), synonymous with *D. giganteum* (Hortus); *D. M. splendidum* (Hortus), *D. M. cœruleum*, *D. M. laciniata* (Florin), *D. M. albidiflorum* (Hortus), *D. M.*

*lilacinum* (Hortus), *D. M. elegans* (Hortus), *D. M. rigidum*, *D. M. hortense*. Some thirty varieties have sprung from these; such a collection is but rarely met with. There is also the *D. Clevelandi* (Greene), an American variety; the *D. integrifolia* (Michaux), United States; *D. Lemoinei* (Lemoine) and its varieties, *D. L. atropurpureum*, *D. L. compactum*, *D. L. elegans*, *D. L. excelsum*, *D. L. robustum*; all these varieties were produced by Lemoine of Nancy; *D. pauciflorum*, introduced by the same grower; *D. Hendersoni*. There are charming plants among this large collection of Dodecatheons; it is surprising that we so seldom see them in gardens.

AD. VAN DEN HEEDÉ in *Bulletin d'Arboriculture*.

## SOCIETIES.

### NORFOLK AND NORWICH HORTICULTURAL SOCIETY'S CHRYSANTHEMUM SHOW.

THIS show, a three day fixture, is held usually at a late date considering the surroundings, being held this year on the 20th, 21st, and 22nd ult. The venue is the grand old hall of St. Andrews and the adjoining one of Blackfriars. Taking a general survey of the exhibits (in spite of predictions of a bad time expressed by the usual grumbler type owing to the wet season), these surpassed last year in many things. This was especially noticeable in the stands of Japanese cut blooms, and also in the fruit section. Sir Saville Crossley took the premier award for a stand of forty-eight well-finished blooms, and also a charming two dozen stand of incurves, having in this latter the medal bloom, a massive specimen of *Mme. Ferlat*. The medal for best Japanese was secured by W. R. Seago, Esq., Lowestoft, with a bold well-balanced flower of *Kimberley*. Lord de Raunsey, Lord Walsingham, and the Hon. A. E. Fellowes, M.P., were also prominent prize winners in the cut bloom classes. The best plants of *Chrysanthemums* in pots were those sent by A. J. Bunting, Esq., Old Catton, having bold blooms, with stems well covered with good healthy foliage. H. Rider Haggard, Esq., secured the first prize in all three classes for Orchids, staging some very choice *Oncidium*s. Mr. W. Allan, gardener to Lord Suffield, had grand specimens of Grapes and Pears, securing the chief prizes; whilst for vegetables, Mr. G. Davieson, gardener to Captain Petre, Westwick House, could fairly claim championship by the large percentage of firsts ticketed on his exhibits. This exhibitor also had the best nine dishes of cooking Apples, and grand samples they were. One of the most striking features was a bank of *Chrysanthemums* grown in pots and exhibited in a massive bank by Mr. Robert Holmes, a specialist of Tuckswood, Norwich; it covered 55 feet long by 6 feet wide, and embraced over 250 different kinds. Messrs. Daniels Brothers, Limited, had a display of much merit, consisting of cut blooms of *Chrysanthemums*, pot plants, fruits, and sundries. Hobbies, Limited, had a back of the leading exhibition *Chrysanthemums* set up in bold array, also some pretty bunches of Roses from their fields.

### EAST ANGLIAN HORTICULTURAL CLUB.

At the November monthly meeting Mr. J. Clayton, manager to Messrs. Daniels Bros., Limited, read an interesting paper, entitled "The Four Seasons of the Year: Notes Taken in a Garden." Messrs. T. B. Field, F. Piper, J. W. Clarke, and others engaged in an interesting discussion, pointing to the gardener's opportunity of comparing with the open book of Nature before him the works of his Creator.

### BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THIS up-to-date society held a well-attended meeting at St. John's Rooms, Redland, on the 27th ult., Mr. E. Poole, F.R.H.S., occupied the chair. The subject for the evening was "Fungus," the lecturer being Mr. Harding, of Clifton, and it need hardly be said that his lecture was a most instructive one, and thoroughly appreciated by his very attentive audience. He divided his lecture into four heads, namely: Moulds and mildews, rusts and smuts, galls and blisters, canker and dry rot, each head receiving careful consideration, his remarks being followed with no small amount of interest. Mr. Harding pointed out the extreme beauty of fungi when under a powerful microscope, many of us being apt to look upon them as very ordinary every-day things, simply for the want of knowledge of these natural beauties, the colourings in many being almost unsurpassed. He gave information as to the ways and means of fungi being introduced, one specimen alone being capable of spreading millions of spores, pointing out that they would only flourish where the conditions suited their requirements. He fully described the Potato and Tomato disease, which at times were very troublesome to the gardener. Altogether his lecture was highly instructive, and he was unanimously accorded the hearty thanks of the meeting. His lecture was much enhanced by 150 water-colour drawings, very kindly lent by Mr. Wheeler, Queen's Road, Clifton, which, to say the least, were beautiful in the extreme, and he was voted the sincere thanks of the association for his kindness. The prizes for the evening were for a vase of autumn foliage and berries, for under gardeners only, the prize-winners being Messrs. Keeford, R. Poole, and A. Coulson. A certificate of merit was awarded to Lady Cave (gardener, Mr. Poole), who takes such a kindly interest in the doings of the association, for a Pineapple and a collection of fungi, one also being awarded to Mr. A. Cole (gardener, Mr. Bird) for a fine bloom of *Florence Molyneux Chrysanthemum*.



# THE GARDEN

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## TREES AND SHRUBS FROM JAPAN.

**A**MONG the more important lectures delivered before the Royal Horticultural Society during the year that is fast drawing to a close was that by Mr. James H. Veitch on "The Lesser-known Trees and Shrubs of Japan," and those present will remember the exceptionally interesting collection of dried and living specimens from the nursery of the firm at Coombe Wood, Kingston.

At this planting season, and at a period in the history of English gardening when there is a greater desire to think as much of the woodland as of the flower border, the remarks of Mr. Veitch should not be forgotten. To plant recklessly the more recent additions till they have proved their worth for this climate would be foolish and expensive, but those able to do so may well make trials with a view to further plantings in the future. It may be urged that our beautiful native shrubs are not planted in the free groups we would have them seen, and certainly no foreign shrubs can compare with or take the place of our Yews or Hollies. However large a collection of exotics may be, a winter walk among them only shows that there is nothing more cheerfully handsome than our Hollies or more solemnly dignified than our Yews. But this does not mean that the beautiful species from Japan and China should not take a proper share in garden adornment.

To show the wealth of the flora of Japan, Mr. Veitch mentioned in his lecture that at one place, at an altitude of 500 feet above the sea level, Professor Sargent had found no less than forty-six species and varieties of plants, and, within a five-mile radius, sixty-two, though, as Mr. E. H. Wilson, who has recently travelled in China, has proved, many of the trees and shrubs found in Japan are also natives of China.

We have studied the lovely species from China and Japan with much interest, and those who visit regularly the shows and meetings of the Royal Horticultural Society have opportunities of seeing living specimens in either leaf or flower, and therefore in a measure find out for themselves their value for English gardens.

Our visits to Coombe Wood to see the introductions from abroad in health and vigour have been of extreme interest and utility, and it is astonishing the better-known species

are not more planted in English gardens, though their hardiness has been proved by long experience.

It may be useful to point out a few of the shrubs that we seldom find mentioned in books or journals, but yet possess great flower beauty. One is *Viburnum tomentosum* Mariessi, a quite distinct species, and so graceful that a large group on lawn or in woodland would be an unfailing delight during the time of flowering. It is allied to the well-known *V. plicatum*, but with this great difference—that the sterile flowers are confined to the outer portions of the inflorescence. This imparts a quaint beauty to the shrub. Its spreading shoots are lined with the flat cymes, and the whole bush a mass of cream-white, more pleasurable even than the wealth of ivory clusters of the better-known *V. plicatum*.

The *Styrax* genus illustrates the slow appreciation shown for good hardy shrubs from Japan. *S. Obassia* has been in the Coombe Wood nurseries for many years, flowering with delightful freedom in its appointed season, but we have not seen a tree of either this or any other *Styrax* elsewhere. Professor Sargent, in *Garden and Forest*—a journal whose brief life we have never ceased to regret—writes of this species thus: "As an ornamental plant the most valuable of this family (*Styracæ*) as represented in Japan is certainly *Styrax Obassia*, a tree which grows as far north as Sapporo in Yezo, and which may therefore be expected to be as hardy as *Cercidiphyllum*, *Magnolia Kouba*, *Syringa japonica*, and other Yezo trees with which it grows and which flourish in New England." *S. japonica* is another beautiful species which makes the hillsides of Central Japan white with flowers in the month of May, and has proved quite hardy in this country.

Mr. Veitch alluded to the Japanese Maples, and *A. distylum* in particular, as a noble tree. From what we have seen of this species we shall not be surprised to find it in the near future much planted in English gardens. It was introduced by the firm from the high mountains of Nippon, and Messrs. Veitch's description is an apt one: "The foliage is very distinct, being composed of single ovate acute leaves, with finely serrate margins, 5 inches to 7 inches long and 3½ inches to 4 inches broad, green above, paler beneath, and quite glabrous except at the base and the axils of the larger nerves. It is perfectly hardy in Great Britain, and a highly ornamental tree for park or pleasure ground."

*Cornus macrophylla*, *C. brachypoda* variegata, and *C. Kousa* form a charming trio of introductions from Japan, but they are as rare as a species brought to this land a week ago. *C. macrophylla* flowers superbly at Coombe Wood, the branches almost bent with the burden of blossom. Professor Sargent wrote of it as follows in *Garden and Forest*:—"It is one of the most beautiful of Cornels, and in size and habit the stateliest and most imposing member of the genus. In Japan, trees 50 feet or 60 feet in height with stout, well-developed trunks more than a foot in diameter are not uncommon, and when such specimens rise above the thick undergrowth of shrubs, which in the mountain regions of Central Japan often cover the steep slopes, they are splendid objects, with their long branches standing at right angles to the stem and forming distinct flat tiers of foliage, for the leaves are crowded at the ends of short lateral branchlets, which grow nearly upright on the older branches. These are 5 inches to 8 inches long and 3 inches to 4 inches broad, dark green on the upper surface and very pale, sometimes nearly white on the lower surface." *C. Kousa* is another species well worthy of the planter's attention, and many other instances might be given of the strange neglect of trees and shrubs of great charm and distinctness introduced of late years from Japan. That excellent Birch (*Betula Maximowiczii*) will, as Mr. Veitch said, prove "better than anything we possess," and a great future is predicted for the Japanese Oaks, deciduous and evergreen. *Quercus dentata* grows to a height of 80 feet in these eastern forests, and the evergreen *Q. acuta*, *Q. cuspidata*, and *Q. serrata* were much praised for their noble leaves and spreading growth. *Daphniphyllum glaucescens* is an evergreen that is slow to win the regard of the planter, but few handsomer evergreens exist; it is quite hardy, leafy, and just the shrub for the lawn.

Of the good work accomplished in recent years, to say nothing of the past, by Messrs. Veitch in bringing home the plants of permanent value for this country, we need not write; it is evident in the gardens of the British Isles, and the outcome of the earnest endeavours of such travellers as Mr. James H. Veitch himself and the firm's collector, Mr. E. H. Wilson, while quietly working for our good have been men of the rare quality of Dr. Henry, who has enriched our collections with many things we now regard as flowers for all gardens. Nor are we unmindful of the work accomplished at Kew, apart from purely botanical



considerations, in planting these beautiful introductions in ways to reveal their value for English gardens. They are planted in border and woodland, and thus we know their value for similar places in private domains. This is a practical phase of gardening we rejoice to find carried out ungrudgingly at Kew in spite of the increasing smoke and dirt from the fast encroaching Metropolis.

### THE HORTICULTURAL HALL.

#### IS RECONSIDERATION POSSIBLE?

SIR,—As one of the many Fellows who have the interests of the Royal Horticultural Society at heart, I wish to express the hope, if I may be permitted to do so in your pages, that the design for the hall that has been published is not the final pronouncement of the council's opinion as to a suitable building by which to commemorate worthily the society's centenary.

I cannot help being aware that, in many cases besides my own, in all those in fact with which I happen to be in friendly or accessible contact, that the proposed design is viewed with entire disfavour, in some with absolute dismay. We say to each other—is it possible that that is the best that this now great and powerful society can put forward as the expression in architecture of its aims and position! We think—with bowed heads—how our French friends, with their admirable taste in matters technical, will laugh at us! We think and say all kinds of things that for courtesy sake we dare not disclose to the building committee of the Royal Horticultural Society. One thing only by your permission I will say for myself and for the others whose minds I know—that we earnestly trust there may yet be time and willingness to reconsider the whole matter.

It would be easy to heap abuse on the unhappy plans themselves, but this is not my desire or intention, only to give expression to the earnest hope that they are not finally accepted.

Your present correspondent is not an architect, but has been long in touch with matters of structure and design. One writer in *THE GARDEN* suggested an added porch as an improvement to one face, but no added ornament can redeem a poor design. In architecture the whole design in its unity expresses dignity or expresses meanness, or anything between, unless, as is, alas! so often the case, it expresses nothing at all. It is not added ornament that makes a beautiful building, but good design and proportion from the very beginning.

In these plans, moreover, one cannot help observing many examples of opportunity wasted, such for instance as rather obvious ways of making the hall not only better suited for its own purpose, but of rendering it more attractive and better adapted for letting purposes for many kinds of social gatherings; for it is to be presumed that as shows are held only fortnightly it will be available for other purposes, to the evident advantage of the society's finances. There might also be ways of offering greater convenience and comfort to exhibitors, and of safeguarding the entrance of tender plants in cold weather, and so on.

It would have been easy to write an appeal direct to the building committee, but one letter to their office would be but a drop in the ocean, whereas in your pages it may be of more utility as showing others what some fellow members feel, in order that they may, as I trust they will, desire to take part in an appeal, in all friendly courtesy, to their society's building committee.

F.R.H.S.

SIR,—It may be, on the whole, a wise exercise of editorial discretion not to invite a general discussion of the proposed plans for the new hall, but the interests involved are large and important, and the particular plans adopted may make or mar what should be an enterprise worthy of the Royal Horticultural Society. Whether preferring, first, the garden or the hall, we must all feel that, the latter having achieved precedence, the society should have something worthy of the occasion, and justifying the very large expenditure which is to be incurred. That the plans shown to us have been received by many with feelings, to say the least of it, amounting to very great disappointment, if, indeed, not to actual dismay, is no secret in the horticultural world. "Cannot the plans be stopped, or at least further considered and amended if good cause be shown?" is a question which has been frequently heard amongst Fellows of the society. Surely, looking at the fact that some £40,000 will have to be expended in the erection of the building, and that a yearly increased expenditure is involved, which, capitalised, would mean an additional sum of £33,000 or thereabouts, in all fully £70,000, it would be far wiser that a little delay should now be accepted as inevitable than that the society should hereafter lament at leisure over a lost opportunity.

If by the term "approved" the council mean that they have irretrievably committed the society—and without reference to the Fellows—to the plans in question, and that it is now too late to consider any suggestions for the improvement or modification of the particular design, exterior or interior, then I think that a serious responsibility has been incurred, and one which must in the future continue to attach to the members of this particular council. It is the view of many that in an event of this importance the design and plans should have been put up to public competition. Has this been done, and if not, why not, and is it yet too late to resort to this usual method? The expenditure of a few hundred guineas in this direction is a trivial consideration in view of the large sum involved in the undertaking. And again, would it not be well that before final adoption the competitive plans should be submitted—not for final selection, but for advice or suggestion to the council by eminently capable and competent men—to a grand committee of all the members of the several standing committees of the Royal Horticultural Society? If the present plans are adopted and carried out without, as would be the fact, opportunity afforded to the Fellows to criticise and suggest, then in my opinion worse than a tactical mistake will have been made. We shall have a building poor in architectural design, and absolutely inconvenient and insufficient in its interior arrangements, not least of which will be committee rooms inadequately lighted for critical examination of the flowers submitted, and removed so far from the actual place of exhibition that reference for purposes of comparison to blooms contained in general exhibits will be from consideration of time and distance practically impossible. Where again is the room large enough to accommodate in general meeting the members of a society numbering over 6,000, and where the homes in the building for the special societies, such as the National Rose Society and National Chrysanthemum Society? And all these things have been foreshadowed, even when the probable expenditure was estimated at little more than half the large figure to which it has gradually grown. *Festina lente* is a proverb worthy of consideration.—I remain, sir, yours faithfully,

A FELLOW OF THE R.H.S.

[Though we desire no bickering discussion the above letters are so sincere and to the point that we gladly publish them.—ED.]

## NOTES OF THE WEEK.

### FORTHCOMING EVENTS.

December 15.—Meeting of the executive committee of the National Chrysanthemum Society.

December 16.—Annual meeting of the National Dahlia Society, Hotel Windsor.

**"The Garden" Almanac.**—We shall publish with the first number of the new year an almanac for 1903, containing the dates of all the principal events in the horticultural world for next year. The almanac issued this year was a great success, and the forthcoming production will be even more useful to gardeners and all interested in forthcoming horticultural events.

**Coloured plate of Tea Rose Lady Roberts.**—The plate to be given away with the first number of the new year will be of the beautiful Tea Rose Lady Roberts, which aroused much interest during last summer and autumn.

**Mr. Martin Sutton.**—A statue of King Edward VII. was recently presented to the town of Reading by Mr. Martin J. Sutton, and unveiled by H.R.H. Prince Christian. At the same time the freedom of the borough was conferred on Mr. Sutton.

**Rose G. Nabonnand.**—We shall be pleased if we can be of service in settling the correct nomenclature of the above Rose. Having the pleasure of a personal acquaintance with the rosarian whose name it bears, and remembering the Rose from its first introduction, we inserted a note in our catalogue calling attention to the matter, and what we stated there is confirmed by the following extract from a letter we received from Messrs. Nabonnand last August: "Le prénom de notre père est bien *Gilbert* non pas *Georges* et nous avons nommé cette Rose *G. Nabonnand* tout court; c'est donc par erreur que les journaux anglais l'annoncent sous le nom de *Georges Nabonnand*; si vous pouvez leur en faire la remarque nous vous en serons bien obligés." The italics are Messrs. Nabonnand's. It follows, therefore, that the correct name is *G. Nabonnand*, as stated by us.—WILLIAM PAUL AND SON, Waltham Cross.

**"Index Kewensis."**—It is interesting and welcome news to know that this famous work will soon be completed to the year 1900. The main work was brought to the year 1885, and then a supplement in four parts was promised, the second part having appeared recently. This supplement, which comprises ten years, 1885-95, is being edited by M. Théophile Durand, Directeur du Jardin Botanique de l'Etat, Bruxelles, and the proofs corrected by Mr. Daydon Jackson, Permanent Secretary of the Linnean Society. The main work was printed by the Oxford University Press, but negotiations in reference to this supplement fell through, though it is gratifying to know that the second supplement, bringing the work to the end of the century—i.e., five years more, is being compiled at Kew, and the first part is almost ready. This great work of the past century has therefore had a somewhat chequered history; but it is being completed almost to the present time, in the best possible place—the Kew Herbarium.

**Chrysanthemum Miss Mildred Ware.**—This is a Japanese variety, and will probably become extremely popular in succeeding seasons. It was exhibited before the National Chrysanthemum Society's floral committee, and also in the groups of Mr. H. J. Jones and Mr. Norman Davis at the great November exhibition at the Royal Aquarium. It is said to be a seedling from Mme. Carnot, and the flowers remind one of that handsome sort. The colour is just a little difficult to describe accurately. Some call the flower a Lady Hanham-coloured Mme. Carnot, but as a matter of fact, the colour is midway between Charles Davis and Lady Hanham. It is an acquisition, and will no doubt be largely grown.



**Cotoneaster frigida.**—From Dunningwell, Milloim, *via* Carnforth, we receive the following note:—"The accompanying berried shoot is a bit of *Cotoneaster frigida*, which I saw growing in this neighbourhood a few days ago. The bushes presented a most gorgeous appearance for this time of year, and were completely covered from the ground to the top with branches heavily laden with glowing crimson berries, very much like those of the Mountain Ash. The evergreen leaves more resembled *Laurustinus*; the bushes were nearly as high as the house by which they grew, and which was nearly surrounded by them, so you may imagine what a picture they made for the very end of November. If this shrub were better known it would certainly be widely planted, because it adds hardness to its other attractions, and is very easy of culture, besides it is only priced at 1s. to 1s. 6d. in the nurserymen's catalogues."—C. B. MYERS.

**A late-flowering Nerine (N. Manselli).**—The best-known of the *Nerines*, such as *N. Fothergilli* and *N. sarniensis*, are justly valued as beautiful flowering plants for the greenhouse during the autumn months, but that above mentioned—*N. Manselli*—considerably extends the period of blooming, as it may often be met with well into December, at which time its bright carmine-pink flowers are very welcome. It has now been before the public for some years, but is still far from common, though its merits are so pronounced. It was raised by Mr. O'Brien when at the once famous nursery of Messrs. E. G. Henderson, of the Wellington Road, St. John's Wood (now a part of Lord's Cricket Ground), and the Pine Apple Nursery, Maida Vale. The bulb was, I believe, purchased under another name by Mr. Mansel, of Guernsey, but on flowering it proved to be so distinct that the name of Manselli was given to it. *N. undulata* or *crispata* is quite as late in flowering; it has small bulbs and grass-like leaves, well overtopped by the flower-scape, which bears several blossoms, the segments of which are extremely narrow, much undulated, and pale pink. It is far less showy than many of the others, but its delicate beauty and freedom of flowering are conspicuous.—T.

**Roses in December.**—Few Rose growers can remember a season like the present, when a good gathering of flowers was to be had in November, and stray blooms in December. I am aware in one sense this is not what Rose growers like, as it makes planting so much later, and this delays the work. Often when Roses are planted late the work is done under difficult conditions as regards weather, and at times some necessary work is overlooked. On the other hand, such seasons as this point out the great value of certain varieties of Roses for autumn flowering and massing in beds. This is worth attention, as many owners of gardens do not see their Roses at their best, and by growing late kinds there is a much longer season. There are so many good kinds to select from that it would be out of place to take up space, but as my note refers to the northern part of the country I would note the value of the Hybrid Teas for late flowering. One of our brightest beds in the garden this November was *Marquis of Salisbury*, the larger and beautiful *Mrs. W. J. Grant*, or *Belle Siebrecht*, and several varieties of the *Polyantha* section.—A. C. N.

**Pear Passe Crassane in mid-winter.**—How rarely we see a good crop of this excellent dessert Pear in gardens, even where this fruit receives special attention. This is to be regretted, as I do not know of a better mid-winter Pear than this. A few seasons ago this old variety, if I mistake not, received a first-class certificate from the Royal Horticultural Society for its excellence, the fruits exhibited being very fine, and I think were grown by Mr. Woodward. Certainly those who saw and tasted them were astonished to find how good the flavour was. It may be considered wrong to recommend any variety that crops badly, and I am aware there is great force in this argument; but why not endeavour to grow it well? I notice that the last year or two our fruits have been better, I mean

the crop is finer, and this is owing to less pruning. This variety, like several others, will not stand severe pruning: as a cordon tree I found it useless, also on a wall, unless given more freedom. Another point, I think, that causes a great difference is the stock. This variety on the Pear stock with us rarely carried a dozen fruits; it needs double grafting to prove successful, though I have heard from several growers that on the Quince stock it gave fair fruits, but the trees were not robust. It is worth a trial, as good winter Pears are scarce.—G. W. S.

**Humea elegans poisonous.**—It is now nearly forty years since the poisonous qualities of *Humea elegans* were first brought painfully home to me, as after potting some plants I was attacked by an inflammation of the eyes, which lasted for several days. I did not, however, at that time associate the pain and irritation with the *Humea*, but subsequent attacks immediately after handling the plant showed that it was undoubtedly the cause. From that time any handling of the *Humea*, however slight, has led to a recurrence of the inflammation, yet on many people it has no effect whatever. Strange to say, my eyes are particularly sound and keen, and *Primula obconica*, which troubles so many, does not cause me the least inconvenience, however much it may be handled, and such subjects as *Nettles* and the tropical *Laportias* worry me less than they do most people.—H. P.

We have received the following from "A Victim": *Humea elegans* is poisonous, and should not be brought near the eyes. I have suffered for some weeks with an inflamed eye caused simply by drawing my hand over the leaves, and afterwards accidentally rubbing the eye. This has caused much pain, and is almost as bad as being stung by a wasp.

**Parrotia persica.** This is one of the many things which at its introduction and for some little time afterwards was grown under glass. Experience, however, having shown this to be unnecessary, *Parrotia persica* has been since used in the south and west of England at least to enrich our shrubberies rather than the greenhouse. It is still a comparatively rare shrub, but may be strongly recommended to the notice of planters because of the brilliant autumn colour of its foliage. The leaves are a glowing crimson about one-third of the way down from the top, the remainder being a bright yellow with a touch of green towards the base, a peculiarity that may vary a little on different soils, but is fairly constant. It does best with a little shelter in some corner of the pleasure ground, with a screen of trees and shrubs to the north and east. Strong healthy plants are most quickly obtained from layers. This *Parrotia* is not particular as to soil, that is, so far as growth is concerned, but as noted above this has its influence on the autumn colouring of the foliage.—E. BURRELL, Claremont.

**Veronica speciosa.** Well-flowered specimens of this New Zealand species or any of its many garden varieties are very useful throughout autumn and early winter, either for

sheltered corners out of doors or for grouping with other things in the greenhouse or conservatory, for the flowers are borne freely, are rich in colour, and well shown off against the deep green leaves. The type bears blue flowers in axillary racemes 3 inches long; this plant, although pretty, is by no means so beautiful as some of the garden varieties of which *Eclatante*, *Constellation*, and *La Seduisante* among the reds, and *Mme. Chrétien*, *Merveille*, and *Purple Queen* among the purples are worthy representatives. In the case of these varieties the inflorescences are 4 inches or more long, conical, and densely packed with blossoms. Unfortunately, the species is not hardy, except in a few favoured localities; it may, however, be planted out of doors, keeping a stock in a cold frame. When planted out in this way flowers are usually more freely produced, and on the approach of winter the plants may be lifted and potted and used for indoor work. When planted in a sheltered position plants occasionally pass through mild winters without harm near London, though more often they are badly damaged if not killed outright.—W. DALLIMORE.

## MISTLETOE.

In earlier days of our island the Mistletoe (which we associate with Christmas alone) was sacred to the month of March. Then this curious parasite was venerated in many countries. In Scandinavian mythology it figured largely, and was considered powerful alike for good or evil mind or body. Isaldee the beautiful was said to have been slain



MISTLETOE: GERMINATION (TOP) AND TWO YEARS' GROWTH.



by a shaft of Mistletoe. It was a sacred growth to the Druidical priesthood, who called it "all healing," especially when grown on Oak. Among the ancient Britons the cutting of the Mistletoe was a high and important function. The plant was at its best in March, and New Year's Day was then held on the 10th of that month.

The cutting of the Mistletoe was held as near that date as possible, but the moon was an important factor in the proceedings, and "the sixth night of the moon" was held as a law of the Medes and Persians for this rite. A procession was formed to the grove of Oaks where the sacred Mistletoe had been found—priests in white, men solemnly marching and leading, adorned with garlands, two white oxen.

In the brilliant moonlight the chief Druid climbed the tree, armed with a golden blade, with which he cut the branches of Mistletoe, and passed them to other priests below, who guarded it jealously, for its virtue was lost if it touched the unhallowed soil. Then the oxen were sacrificed, and the procession marched home with the sacred burden, to be used in many forms, each part of its leaf, stem, and berry having its value, and being prepared as infusion, powder, ointment, &c., to be doled out by the priestly apothecaries as a specific for all ailments. Nay, even a spray of leaf and berry, after having been submitted to various incantations, was worn by the proud recipient next the akin (on the breast) as a protection against evil spirits.

Times and seasons were supposed to add to the magic powers of the Mistletoe, which, as a medicine, is no longer valued. Its use, however, long survived the Druids, and has continued more or less until comparatively recent years. Apothecaries at one time gave large prices for it. It was supposed to be specially efficacious in epilepsy. Now it appeals to us chiefly at Christmas, and in the form of a "kissing bush," by which name the rustica know it, is a survival of the old custom of hanging it in houses as a talisman against the evil one.

Herefordshire, Worcestershire, and other Midland counties send large quantities to London for the Christmas market. A further supply comes from abroad—Brittany and elsewhere. It is a pretty sight to see a ship unloading Mistletoe in one of our northern docks, where the merchandise is usually more useful than ornamental. The name is Saxon—"Mist" glue and "Tan" twig; the berry when broken is found to contain a thick sticky matter like glue, also a single seed.

The wild Mistletoe is propagated by birds, who feed greedily on the sweet, luscious berries; the juice sticks about their bills, and they are rubbed on adjacent trees; juice and seed stick to the bark, and in certain places grow. The berries are ripe in March and April; many are left even until then. At the ends of the light twigs, where birds have no standing place, these fall to the ground and die; they cannot propagate as other seeds in the soil.

The Mistletoe is not like many parasites, such as the Brocmrape, Eyebright, and others of that genus, who feed on the roots of tree or plant, or, as certain fungi, which are nourished on dead portions of bark. As the Mistletoe is choice, and selects the best juices of the tree, as this parasite increases in size the parent tree dwindles, and in time dies. It is obvious that to the flourishing Mistletoe a full supply of sap is necessary. Even in the winter months, when the whole structure should be at rest, very graphic is the Greek derivation of parasite, meaning "one who eats at the expense of another."

It is very interesting work for the amateur gardener inoculating Mistletoe. This can be very

successfully done. The writer has found March the best time for grafting. The berries should be taken fully ripe, and choosing a young Apple, Pear, or Thorn tree, a branch of two years old growth should be selected; squeeze a berry on to the bark on the under side of a branch until it is firmly placed.

The sticky juice soon dries round the seed, and the embryo inside feeds on the juice, assisted by the sun, air, and rain for many months. Meanwhile it is throwing out tiny threads of roots into the bark, and the new layer of bark finally encloses it. In twelve months, if successful, a little green stem is visible, which soon puts forth two hardly visible leaves, and the growth may be considered fairly established. Many failures ensue, so it is wise to experiment on many parts of the same tree, and a useful ingredient is patience.

Mistletoe is rarely seen on the Oak. In a recent enquiry and search, twelve specimens only were



MR. T. ALFRED H. RIVERS OF SAWBRIDGEWORTH.

found in Herefordshire and one in Worcestershire. The latter was an object of great interest and pride. It grew, unfortunately, on the roadside, the parasite being on one of the lower branches. This in time was found to incommode traffic; certain branches were condemned by the road authorities and cut down, and the celebrated Mistletoe Oak deserved its name no longer. Great indignation was expressed, and a year or two elapsed, when the Mistletoe appeared again on one of the upper branches—probably had been caused by sap, or fibre had run under the bark and upward.

It is said by Mistletoe growers that once in a tree, like some disease, it is impossible to eradicate. Long may this curious parasite flourish in our land, and may Christmas time still find us greeting our dear ones under "a bonny bush of the fair Mistletoe." We like to see the greyish green leaves and silvery berries apart from their associations. Their colouring is pleasing.

MARTIA.

## WORKERS AMONG THE FLOWERS AND FRUIT.

T. ALFRED H. RIVERS.

**I**N the world of fruit growers and raisers the name of Rivers is a household word, and we feel sure a portrait of Mr. T. Alfred H. Rivers, who, with his brother, is carrying on so faithfully the traditions of the firm, will interest our readers. Fruit culture is beginning to arouse interest in the minds of amateurs, who are not unmindful of the blessings of a good orchard planted with trees, that give, through good culture, satisfactory crops of wholesome produce. THE GARDEN has not been slow in its attempts to wake up amateurs, as well as farmers and cottagers, to a sense of their loss by not giving the fruits of the earth their proper place in garden economy. We know how keen the growing of hardy fruits, Apples and Pears in particular, is becoming, by the many notes contributed to our columns of recent years, and it is through the efforts of such raisers as Mr. Rivers that our gardens are in the present age so abundantly blessed with wholesome and well-flavoured varieties. We have lately written of the splendid pot trees, the Cherry, Peach, Nectarine, and others at Sawbridgeworth, so that further reference to this matter is needless, and as Mr. Rivers recently read before the Horticultural Club a paper dealing with this subject, we hope soon to publish the remarks then made for the guidance of those who intend to make an indoor orchard on a small scale.

In looking through the list of fruits raised by the grandfather and father of the present firm, it is astonishing how many are grown in England, and we may say the gardens of the world at this day. Conference Pear, illustrated in THE GARDEN, November 22, was born at Sawbridgeworth, and is a Pear likely to take a high place in the future among dessert fruits. Its peculiarly distinct rose-tinted flesh is very juicy and rich, and the tree bears abundantly. And among Nectarines and Peaches many of the varieties we praise for their beauty and lusciousness we must thank the Messrs. Rivers, such as Nectarines Cardinal and Early Rivers'; the former is of value for forcing only, that is, it is an excellent fruit for pots, which those who have orchard houses should take note of. This we have also illustrated on more than one occasion, the brilliant colouring and exquisite flavour of the fruit warranting frequent reference to so excellent an addition to our indoor Nectarines. It ripens ten days before another variety raised by Messrs. Rivers, namely, Early Rivers', which is one of the most popular fruits of the present day. Goldoni, the famous Lord Napier, Pine-apple, Rivers' Orange, and Stanwick Elruge were also raised at Sawbridgeworth.

It is interesting to glance through the collection of Peaches, where the same splendid work of the past is evident, because here we find such varieties as Duchess of Cornwall and Thomas Rivers, two of the most recent acquisitions, and among older varieties may be named Alexandra Noblesse, Crimson Galande, Dr. Hogg, Early Beatrice, Early Rivers', Gladstone, Golden Eagle, Goshawk, Lord Palmerston, Princess of Wales, Early York, Sea Eagle, and



the Nectarine Peach, a goodly list of varieties so well known that descriptions are needless.

The work of raising seedlings has been as successful among the Plums as in the case of the Peaches and Nectarines. Few who enjoy the luscious quality of Early Transparent, Golden Transparent, and Late Transparent Gage Plums know that these were raised at Sawbridgeworth, or that the famous Monarch, Stint, The Czar, Late Orange, and President may also be numbered among those that were produced through the keen interest and skill shown in hybridisation by the founders of the firm.

To walk through the houses and broad acres at Sawbridgeworth is fraught with interest, and it is gratifying to know that fruit hybridisation is carried on with the enthusiasm that filled those pioneers of the firm who have blessed mankind with products so wholesome and comforting. We need not write more of the Messrs. Rivers of Sawbridgeworth than to draw attention to the accompanying portrait of Mr. T. Alfred H. Rivers, who, with his brother, Mr. H. Somers Rivers, is carrying on the work of the past with zeal and a right appreciation of the increasing importance of the British fruit industry.

## THE FLOWER GARDEN.

### CACTUS DAHLIAS AS GARDEN FLOWERS.

**W**HEN the just advertised meeting of the National Dahlia Society is held, on the 16th inst., I purpose, as a non-exhibiting member, to see whether it may not be possible to induce the committee to show some interest in the Cactus section of Dahlias as garden flowers, and a little less for it as mere exhibition subjects. It is rather pitiful that a society calling itself "national" should seem to have no higher aims than in mere exhibitions. It may be retorted, doubtless, that so far as the Auricula, Carnation, Rose, or Chrysanthemum societies are concerned these have no other aims, and so far it is relatively true. But then, no one can grow any of the flowers named without greatly aiding their value as garden decorators, for all have been such ever since they have been cultivated. Dahlias hardly come into the same category, as the large show and fancy varieties do not make good garden plants, and the Cactus varieties generally even less so.

So, from a purely garden point of view, the Pompons and those unclassified varieties commonly called decorative, but are not Cactus varieties, are the best ones, yet these are just now outside the range of consideration, which is, what does the National Dahlia Society do to help make the Cactus forms pleasing in gardens? We are sometimes told in relation to these flowers that if you thin and disbud and otherwise manipulate the plants, you may make decorative plants of them. But we want a strain of true Cactus Dahlias that are naturally decorative, as are the Pompons and a few of the irregulars of the Dahlia tribe, needing no manipulation.

Why cannot the Dahlia Society obtain the sanction of the Royal Horticultural Society to conduct a trial of new varieties in the Chiswick Gardens and offer prizes for the best novelty, that, whilst combining true Cactus quality in the flower, with a pleasing

floral habit, should satisfy impartial judges that it was naturally an effective and even beautiful garden plant.

A. DEAN.

### GRASS LAWNS AND DAISIES.

I HAVE seldom seen a lawn, one of considerable extent—so infested with Daisies as was that at West Hall, Byfleet, recently. There were many portions of it in which Daisies materially exceeded the grass in density, and getting rid of these weeds became a problem hard to solve. But as some portions of the lawn needed raising it was resolved to lift a large portion of the turf, and when up each turf was unrolled on a table and every Daisy in that way easily extracted. That was done last winter with marked success, so that now there is not a weed to be seen on any portion of the lawn thus treated. That has emboldened the gardener to face the labour of lifting, weeding, and relaying all the other portions of the lawn, and thus, and only thus, will a complete reform in the aspect of the lawn be obtained. The process may be a little costly, but it is most efficacious, and results amply repay.

A. D.

### LAPAGERIAS OUT OF DOORS.

ALTHOUGH the Lapageria has been familiar to gardeners in this country for more than fifty years, yet many are somewhat sceptical as to its flourishing when planted out of doors. There are but two Lapagerias, *L. rosea* and *L. rosea alba*, and both have been successfully cultivated outside in North Wales. When their requirements are thoroughly understood there are but few plants easier to grow; on the other hand, if they are imperfectly understood failure is almost sure to follow. The main point to remember, as regards the growing of Lapagerias out of doors is to secure strong healthy plants. Weak plants, even if they can be induced to live, will probably give but poor results. Now as to the best position in which to plant them. The site must not be too deeply shaded, neither should it be fully exposed to the sun; therefore it must be where it may obtain the morning sun, whilst partially shaded from it in the afternoon. The second point to remember is this: Lapagerias require a shallow soil, a deep compost soon gets sodden and sour. Dig a hole about a foot deep and a foot wide, in close proximity to the selected site, and enclose the space with old slates, tiles, or anything of a similar nature. This will prevent the roots ramifying into the cold and poor

soil beyond. When the planting has been done fill in this space with a compost consisting of loam and peat in equal proportions, with sufficient sand to keep it porous, and immediately stake the plants to prevent their being bruised. In order to get an improved effect the Lapagerias should be planted alternately. Although the plants are hardy—or to be literally correct, they may be grown outside through the winter—it should not be forgotten that some protection from frosts will tend to prolong their lives, the roots especially being protected by a good mulching of manure.

JOHN DENMAN.

*The Laurels, Cains Cross, Stroud, Gloucester.*

## TREES AND SHRUBS.

### HYDRANGEAS.

**H**YDRANGEA HORTENSIA in the south of England is one of the most valuable flowering shrubs, and in Devon and Cornwall, where it is largely grown, creates noble autumnal effects. The bushes reach a great size, single specimens sometimes being met with 6 feet in height and over 7 feet in diameter. Such a plant when covered with hundreds of massive bloom-heads, soft pink or pale blue in colour, presents a lovely picture, but it is when seen in quantity that these Hydrangeas show their value in the landscape. Succeeding under deciduous trees, they may be seen on some estates flowering on either side of a wide carriage drive at the foot of great Elms, Limes, or Oaks, whose branches meet overhead, and affording a charming vista of soft colour. In the full sunlight they flourish equally well, blossoming, perhaps, with even greater freedom. The bluest Hydrangeas that I ever saw, whose colouring was almost Forget-me-not-like in tint, were growing at the edge of a tall cliff overlooking the sea in dry soil, and absolutely unshaded from dawn till night, this instance disproving the theory advanced by some that the blue colouring is due to the plants being grown in shade. Although the normal pink hue is pretty, the clear blue is much more lovely, but the reason



A GROUPING OF HYDRANGEAS IN DEVONSHIRE.



of this abnormal colouring has yet to be determined. Some assume that this is due to the plants being grown in a soil impregnated with iron, others attribute it to the influence of peat. In a certain case, however, where numbers of Hydrangeas are grown in a soil containing a large proportion of iron, scarcely more than two or three plants show signs of blue in their flowers, and plants may be found growing in peaty soil which bear blossoms of the normal pink tint. It is often asserted that anyone can produce this blue colouring by adding iron filings to the soil in which the plants are growing, but, as far as the writer's experience goes, the flowers borne by plants so treated are of an unpleasing, muddled, purplish pink, totally unlike and immeasurably inferior to the clear colouring of the naturally blue flowers. Bushes may often be seen bearing flowers, some of which are pink, some blue, and some of an intermediate hue, but in this case the blue is rarely clear. Plants may also be met with growing but a few feet apart, one with pink flowers, the other with blue. Interesting as is this question, it has but little bearing on the merits of the Hydrangea as an outdoor plant in the warmer districts of the British Isles, and that these are exceptional, whether its flowers are pink or blue, will be admitted by all who are familiar with it in the open. Commencing to flower at the end of July or early in August it holds its blossoms

in full beauty for many weeks. Gradually their tints fade, but even as late as November great pale flower-heads may be seen, that at a little distance are still decorative. *Hydrangea stellata rosea* bears pretty flowers with pointed petals. The blossoms have the property of changing colour, being first white, then purple, and lastly becoming almost scarlet. *H. quercifolia* is another interesting species; and *H. paniculata*, the only really hardy member of the family, with its pyramidal heads of white flowers, is well known and deservedly popular. *H. scandens*, the climbing Hydrangea, is a summer flowerer, and is seen at its best when wreathing the bare trunks of great trees. Being of a self-clinging habit it ascends the trunk without any assistance, and in ten years will reach a height of 40 feet. Its flowers are not particularly showy, the inconspicuous fertile blossoms being greatly in excess of the larger sterile flowers. This, like *H. Hortensia*, is only half-hardy. S. W. FITZHERBERT.

#### STEPHANANDRA FLEXUOSA.

THIS is a delightful but little-known Japanese shrub closely allied to the Spiræas. Although of little beauty as a flowering shrub, its elegant pale green, Fern-like foliage alone makes it worth a place in any collection of choice hardy shrubs. In the autumn this subject is particularly beautiful, as it takes on a fine tone of crimson which cannot fail to arrest attention. It seems to prove quite hardy in the Midlands, and Mr. Crump has it doing well at Madresfield. At the time of writing this note—November 21—a specimen between 2½ feet and 3 feet high, forming a compact and graceful bush, was a perfect glow of colour in the above-mentioned garden. This is a good test as regards its hardiness, as Madresfield is by no means a warm garden, owing to the heavy soil, damp situation, and the fact that it is subject to severe frosts.

ARTHUR GOODWIN.

#### WINTER PROTECTION FOR ROSES.

WHERE standard Tea Roses are not safe from winter frosts the handiest way of sheltering them is by means of coverings of straw or Bracken. Where Bracken is to be had, which is only in districts that do not rot willingly grow the best Roses, as it is an unfailing indication of a poor, sandy, dry soil, it is the best of coverings, as it is long and dry and warm of nature, and is less conspicuous and unsightly than straw. But in most

places straw is the material most easily obtained and applied. The illustration shows the kind of straw coverings used by Mr. Mawley, the eminent rosarian, at his garden at Rosebank in Hertfordshire. This picture speaks for itself as to its purely utilitarian object. The snowy scene, when a garden is at its most dreary time, is somewhat chilling; but this protecting material is necessary if we would save our standard Teas from destruction. This form of Rose is more delicate than the bush, and we well remember the late Mr. Girdlestone telling us that protection was *essential*.

### NOTES ON HARDY PLANTS

#### SOME CHOICE HARDY FLOWERS.

OF surprises the present year has been full, flowers which should have prospered failed, others apparently doomed to extinction bloomed their best and are in perfect health. A few desirable things which flowered well here this season are noted, in the hope that some assistance may be given those who wish to make a selection from the choice importations of recent years. The climate is cold, elevation 250 feet, gravel soil, well drained, and fairly protected from wind.

##### LILIUM NEPALENSE.

A spike of its lovely tea-green and claret flowers was before me gathered from the open border on November 1. Hitherto we had been unable to bloom it outside. Planted out it never failed to make large buds, but they were unable to develop. This cold, wet season they have done well in the same position where they previously failed.

##### EXOGENIUM PURGA.

A lovely hardy *Convolvulus* from Mexico, little known, but of rare beauty and a rampant climber, is now (November 22) dotted with its large purple salver-shaped blooms.

##### ECHINACEA ROSEA SPECTABILIS.

A new and remarkably fine hybrid from *Echinacea angustifolia*, which has shown its capabilities with flowers 9½ inches in diameter, broad strap petals, bright pure rose colour, perfectly formed.

##### EREMURUS

of different species and hybrids are being extensively grown, and make noble groups. We lift very early each year and get our finest blooms by so doing. I append a list of the desirable ones:—

- |                       |            |
|-----------------------|------------|
| Robustus              | } peach.   |
| Elwesii               |            |
| Olga (true)           | } lilac.   |
| Himrob (hybrid)       |            |
| Perry's Hybrid        | } apricot. |
| Wallace's Hybrid      |            |
| Warei (tall)          | } yellow.  |
| Bungei (short)        |            |
| Bungei præcox (short) |            |
| Himalaicus            | } white.   |
| Elwesii albus         |            |
| Olga angustifolius    |            |

A warm, well-drained rich soil and shelter from wind favour their finest development.

##### RHODOCHITON VOLUBILE,

from Chili, is not new, but very rarely seen. No climber is more appreciated with its hundreds of nodding claret bells. Give

WAY OF PROTECTING STANDARD TEA ROSES



moisture, shade, and root protection, but it is better lifted and planted out each spring. To those who like the very best

#### DELPHINIUMS

Kelway's Persimmon leaves nothing to desire; it is a hybrid (*Grandiflora* × *Belladonna*), requires special treatment, never seeds, and should not be allowed to bloom twice. We had it with 6-inch to 7-inch spikes, with laterals to the ground, and its flowering extends over two months, truly a magnificent variety. Lemoine's

#### NEW MONTERETIAS

(hybrids), notably *Tragédie*, are very fine, though not with larger flowers; they are easier to grow outside than *Crocsmia imperialis*. We have them with 5-inch spikes, a vast number of flowers, finely coloured, and of great size and substance.

#### PRIMULA MEGASEÆFOLIA

from Persia is again flowering, but requires frame protection to look its best; it is hardy, but flowers at the wrong time. *Primula Stuartii*, both yellow and purple, a fine Himalayan species, is worth growing in shade and damp, though overrated. The finest new thing we have had in our garden this year was

#### VERATRUM CALIFORNICUM,

of which I send a photograph. The spike of pure white flowers was 8 inches in height, and remained in bloom many weeks. This species differs in habit from the others.

#### WATSONIA MERIANA ARDERNEI,

or O'Brieni, a perfectly hardy albino Cape bulb of great beauty, reputed difficult to flower. So we found it until we sat down to puzzle out its peculiarities. Now we turn out gigantic corms as large as big *Gladioli*, and 6-inch spikes covered with white flowers. (See paper by Mr. Peter Barr, page 376, *THE GARDEN*, November 29, 1902).

#### LYCHNIS GRANDIFLORA

(the true Chinese species)—a beautiful reintroduction figured in Paxton's "Magazine of Botany," single, somewhat dwarf, with fimbriated salmon-coloured petals, a crimson ring, and blue centre—is very desirable, easily raised from slips, and loves damp loam.

#### CAMPANULA MIRABILIS,

though quite hardy and growing finely, florally hangs fire. Ours will be four years old next summer, and should flower well if appearance justifies the assumption. Some very fine *Campanulas* are being introduced. Try *C. bononiensis alba*.

#### A DOUBLE WHITE HEPATICA,

pure in colour, has flowered here this spring; a new and very choice thing from the Continent.

#### PEONIA LUTEA,

a yellow Tree Pæony from Yunnan, has come, I hope, to stay.

#### GENTIANA ACAULIS VAR. KOCHII,

a glorified *Gentianella* of great substance, size, and fine colour, from the Greek Mountains, is an acquisition if it continues to do well.

CAUCASIAN SCABIOUS VAR. PERFECTA, both white and blue, is a decided improvement on the original introduction.

#### HEUCHERA.

The new hybrids of these charming plants are great additions to the borders—*Flambeau*, *La Perle*, *zabeliana*, and others. Here on November 18 *Flambeau* had numerous spikes 3 feet high, loaded with large rosy bells, perfect in form and colour, and most decorative.

#### DIANTHUS KNAPPII,

a very pretty canary-yellow little *Dianthus* well worth growing.

#### ARCTOTIS GRANDIS.

Yes, this has come with a great flourish of trumpets. I lifted mine and potted them a month since. Next year I shall leave them in the borders, where they will make large bushes in one season and are nice, but not worth much trouble, as they close with the least cloud and early in the day. I grow

#### GERBERA JAMESONI

to perfection *inside* a cool house; *outside* it exists. Can anyone grow it *finely* outside in this climate? If so, how?

#### VINCA ACUTILOBA,

a lovely large white Periwinkle, blooming in autumn here. On December 1 it was covered with flowers.

#### P. H. MOLES.

*The Old Parsonage,  
Gresford.*

#### TUNICA SAXIFRAGA.

THERE is always a danger that in our desire to obtain new flowers we may neglect some of the older plants, whose beauty it may be is such as to entitle them to increased admiration rather than to want of appreciation. Many of these older flowers are left unnoticed, while others with possibly much less beauty and of more difficult culture are written about and sought after. This is often the case with alpine, and among the flowers of which one hears comparatively little is *Tunica Saxifraga*, a small alpine plant which has much in the way of beauty to recommend it, and which is so comparatively simple in its requirements that almost anyone with a rockery can cultivate it. Even in a rather dry border it can also be grown with success when it has a position near the front, so that it will not be overgrown by other flowers and overlooked by the observer. It does not appear to be at all particular as to whether

it has much sun or not, as it is flowering here quite as well in a greatly, though not completely, shaded position as in one in full sun. *Tunica Saxifraga* has quite a modest beauty, and the greatest stretch of imagination will not give it any but this quiet grace, which is, indeed, the charm of many alpine flowers. It has very narrow leaves and slender stems, forming a little tuft of rather prostrate branches a few inches long and only rising 3 inches or so above the ground level. The flowers, like those of some of the *Gypsophilas*, are in little panicles, but are produced in succession so as to maintain the bloom for a long time. As this note is written (November 17) it is still in flower, although having been in bloom for several months. It comes into flower in early summer. The blooms are rose or white in colour. *Tunica Saxifraga* apparently

prefers a sandy soil, and looks its best when trailing over a small ledge in the rockery, where its elegant foliage shows well against the stones. I always look upon it as a plant which prefers lime, though that is not absolutely essential to its well-being. It is easily raised from seeds, and by this means can be readily established on walls or even on roofs.

S. ARNOTT.

*Carsethorn, by Dumfries, N.B.*

#### RUDBECKIA LACINIATA FLORE-PLENO

THIS *Rudbeckia*, with its double flowers, is no longer a new or rare plant, for it has already been cultivated for five or six years, yet it is a splendid perennial, to which we should like to draw



A NEW VERATRUM V. CALIFORNICUM.

attention on account of its exceptional decorative merits. Robust and vigorous, it is more than two metres high, and flowers freely from July to October. The flowers are perfectly double, and resemble in shape those of a small decorative *Dahlia*; they are of a beautiful bright yellow. A much better flower-bearer than the perennial *Sunflowers*, the plant has the very appreciable advantage over them of not sending out suckers, and of being able to remain in one place for a long time without transplanting or requiring any other attention except careful staking. Although the flowers are double this *Rudbeckia* produces some seeds, which may be used for propagating, but breaking up strong tufts in autumn or in spring will easily furnish a sufficient quantity of plants which, placed at once in the situation required, will bloom the second year. The best situation for



*Rudbeckia laciniata* is in scattered groups in the middle of borders, by the side of the paths, but it may also be grown as a single specimen or in groups upon lawns. The flowers which, in spite of their duplication, are not unwieldy, are from their extreme abundance and bright colour a splendid help to house decoration.

S. MOTTET, in *Le Jardin*.

### ECHINACEA PURPUREA AND ITS VARIETIES.

*ECHINACEA PURPUREA* (Moench, synonymous with *Rudbeckia purpurea*, L.) comes from Louisiana, and has been known since 1790. It is not, therefore, a new plant; it is rather one that has been almost entirely forgotten, yet it excited great interest when it made its reappearance in 1900 at the Paris Exhibition, where MM. Cayeux and Le Clerc, seed merchants, exhibited it. It was much admired, and redeemed this beautiful perennial plant from oblivion. The following is its description:—The stem, which is stiff, smooth, and slightly branched, attains a height of from 1 metre to 1·20 metres. It is furnished with rough, slightly indented leaves; the radical leaves are oval-lanceolate in shape; the cauline leaves are narrower and thinner. From August to October these stems produce heads of a dull reddish purple, with blossoms of from 5 centimètres to 10 centimètres in length. They are very beautiful, and produce as much effect when growing upon the plant as when they are cut. At the same time, by their shade of colour, which is rare amongst the flowers of this genus, they bring a new element and diversion of colour which will be much appreciated by decorators.

From seeds, MM. Cayeux and Le Clerc have obtained several interesting forms of this plant, showing variations in the colour and in the disposition of the tongue-shaped petals of the flowers, &c.; in a word, these varieties are a sensible improvement on the type. Before the quite distinct results obtained by MM. Cayeux and Le Clerc, the two following forms of this *Echinacea* were already known: *E. p. intermedia*, with flowers wider spread, rounder, and fuller than in the ordinary type; *E. p. serotina*, a form with bristles and narrow petals. Among the new varieties which have been obtained, we will especially mention the two following: *E. p. rosea elegans*, a robust and very floriferous plant, with flowers of a beautiful clear pink; *E. p. atropurpurea*, with flowers of a deep purple-red. We believe that by hybridisation and selection other varieties will be obtained.

Like all the *Rudbeckias*, this plant, in order to grow well, requires a substantial, deep and wholesome soil, and a situation not too much exposed to the sun. It can be used for flower-beds or for shrubby borders, or it may be placed by itself in groups upon the lawn, or banished to the kitchen garden, there to provide flowers for cutting; in a word, it is in its place almost everywhere. As a cut flower, it is also very valuable. This plant can be propagated either by dividing the clumps or by sowing the seeds. The division of the clumps should be made in autumn, or preferably in spring.

If it is preferred to propagate by sowing, the seed should be sown in May (in heat, if the plants are to flower the same year), or preferably in June, under a cold frame. The seedlings should be planted out in a nursery bed, and placed in their final situations in autumn or in spring. This

plant is naturally variable, and in the self-sown seedlings many different colours are found, varying from pink to purple.

JULES RUDOLPH, in *Revue Horticole*.

## THE ROSE GARDEN.

### ROSE ALTAICA.

ONE of the most interesting matters connected with a knowledge of plants is the tracing of a species and its near developments through many lands widely distant from each other. In this pretty species, one of the earliest Roses



CLIMBING AIMEE VIBERT (A WHITE ROSE) RAMBLING OVER WILLOWS.

to bloom in English gardens, we have almost a counterpart of our native Burnet Rose (*R. spinosissima*). Indeed, it might easily be taken for the same species, and doubtless is only a geographical variation with some distinctive character, imperceptible to the ordinary observer, that botanists consider of sufficient importance to give it a separate specific status. For garden purposes it is a Burnet Rose, flowering a little earlier than our well-known one, with leaves a shade paler and yellower, flowers a little larger, and manner of growth rather more vigorous. Its special value in our gardens is that coming into flower some ten days or a fortnight before the Burnet Rose, it extends the all too short blooming season of our Briars.

### CLIMBING ROSES.

#### BEST TWENTY-FOUR VARIETIES.

THE rich selection now available of the very vigorous Tea-Scented, Hybrid Tea, and Noisette Roses renders it an arduous task to name the best twenty-four. Something must depend upon the aspect and the district to guide one in making a selection. Those varieties marked with an asterisk would do well in the southern counties, on south, east, or west walls, but they should be avoided where the conditions are not so favourable.

Then, too, one must thoroughly prepare the ground for the plants, not forgetting that, as the Roses are permanently planted, due provision should be made as to their future requirements. A rich, well-drained soil encourages vigorous growth, and the plants need careful watching in summer to prevent the border getting very dry. Frequent surface applications probably do more harm than good, but a good soaking now and then of weak liquid manure will work wonders.

Many make a great mistake in their treatment of climbing Roses the first season. They often leave the growths their entire length as purchased. I believe in cutting them back hard the first season, the result being some vigorous new growth which will form an excellent foundation for future success.

The best twenty-four are as follows: Billiard and Barré, Bouquet d'Or, Celine Forestier, Climbing Aimee Vibert, Climbing Captain Christy, \*Climbing Kaiserin Augusta Victoria, Climbing Belle Siebrecht, \*Climbing Niphetos (a warm wall indispensable), Dr. Rouges, Duchesse d'Auerstadt, Gloire de Dijon, \*Heuriette de Beauveau, Kaiserin Friedrich, \*Lamarque, Longworth Rambler, Mme. Alfred Carrière, Mme. Jules Siegfried, \*Maréchal Niel, M. Desir, Noella Nabonnand, Pink Rover, Réve d'Or, Souvenir de Mme. Joseph Metral, and Wm. Allen Richardson. The latter, the best orange-coloured Rose, should be planted against a west wall. P.

### THE PENZANCE BRIARS.

THERE appears to be a very considerable difference in the constitution of the Penzance Briar Roses, which when rightly used are such valuable things in the garden. While several seem to retain their vigour for a considerable number of years, there are others which become weakly, scraggy, and useless in a comparatively short time. This is, unfortunately, the case with those which approach most nearly the Austrian Briar in their colouring. Lady

Penzance, one of the prettiest and most pleasing and distinct, is one of these, while Lord Penzance is another, though I think the first is the one which lasts for a briefer time in good condition. I have observed this in a number of gardens, and have heard frequent complaints about the short time they remain in health. On the other hand, there are several which look as if they would remain in health and vigour for a number of years. Of these, such as Anne of Geierstein and Meg Merrilies seem among the most reliable. I should be glad to learn how far this has been observed by others, and also the best remedies for this failing. Pegging down would probably keep up a supply of young plants without raising cuttings or budding on other Briars, but this is unsuitable for those who grow these lovely Briars as hedges, for which they are admirably suited.

S. ARNOTT.



## AN ARTIST'S NOTE-BOOK.

## ROSA SINICA ANEMONE.

FOR rosarians apparently there are many surprises in store if hybridists will devote more attention to certain desirable species hitherto untried. Prior to the introduction of the hybrid Rose illustrated, *R. sinica* was regarded as a very undesirable species for all save those who were fortunate enough to dwell in the southern counties, for besides not being thoroughly hardy this Rose could not be induced to blossom.

I only know of one hybrid of *R. sinica*, except the one under notice, and that is *R. fortuneana*, which is no great acquisition. But when *R. indica* was employed as the pollen parent the beautiful flower that we now illustrate was obtained. We appear to have not only a hardy Rose, but also a free bloomer. No single Rose of recent years has captivated lovers of this class more than *R. sinica* Anemone; its huge silvery rose-pink blossoms and glistening foliage make it a very general favourite. It is a very interesting plant when grown in a pot, and being then shielded from untoward weather its beautiful flowers are more lasting.

It should not be beyond the power of hybridists to give us a fine large-flowered golden-yellow single Rose by crossing *R. sinica* with a deep yellow Tea. A single yellow Rose of this description would be a grand acquisition. P.

## RIVIERA NOTES.

DECEMBER brings with it a number of hardy flowers which contrast with the summer ones that linger on here until the cold nights of January give them their quietus.

*Iris alata*, *I. stylosa*, and *I. Palaestina*, with its rather dull white flowers, make a change that is welcome after the gaudy splendour of *Salvia splendens*; but the rich purple winter-blooming form of *Iris germanica*, with the light sprays of the violet-calyxed *Salvia Ionantha*, and the many spikes of tall-flowering *Yuccas* are even more welcome. *Senecio arborea* is a fine tree-like shrub that deserves more extended cultivation; its shining Chestnut-like leaves and immense corymbs of yellow flowers are indispensable at this time of year, and as it enjoys a little shade it is all the more welcome near trees or Palms that make a background to its broad masses of foliage and flowers. A big shrub of such beauty should also be grown under glass in

England wherever there is room for it, as it is fairly happy under pot culture.

*Illicium anisatum*, the Star Anise of commerce, is another first-class shrub now in flower. It is so rarely seen, and its beauty is so exceptional when fully developed, that I can only imagine that its straggling growth as a young plant has discouraged new gardeners. Its light clusters of starry-white flowers, its red stems, and bright green Laurel-like leaves

now, and I heard a gardening friend that had newly arrived say they were worth coming all the way from England to see; but their beauty is ended in a week or two.

The same fate will befall the gorgeous *Poinsettia* and *Lasiandra* bushes, so splendid on the sheltered and sunny side of a group of Palms which accentuate their occidental magnificence. The first chill of winter will soon mar their beauty, so that they are not plants for

every garden, even on these sheltered shores; still it is worth while to try them where the soil is not too cold or the position too low and damp. Of dwarf shrubs it is difficult to find a more charming trio than the Golden Flax (*Linum trigynum*), which for the next six weeks smother itself in flowers when in shade and shelter. In the open it is liable to sunstroke or a stray frosty night, but as a covering to the ground in the shrubbery or under Palms it is quite at home. In company with it, the tall old-fashioned *Ageratum mexicanum* and the dainty sprays of the rosy *Lopezia miniata*, that enjoy a little more sun, make a combination that is very satisfying and not too common.

There are happily many silver-leaved plants and variegated

shrubs in beauty now, but there is a great want of a good white-flowered dwarf shrub, *Eupatorium weinmannianum* and white Paris Daisies only raise the wish there were something still better. If then the new *Hoheria populnea*, figured the other day in THE GARDEN, proves a good winter bloomer it will be most welcome. In England we welcome the red Holly berries as a relief to the white snow; here we need a good white flowering shrub as a foil to the immense quantity of winter-flowering *Salvias* and *Cupheas*, which are all shades of colour save white.

Of sweet-scented shrubs, I think that *Buddleia salicifolia* carries off the palm just now, though the masses of *Heliotrope* are very abundant still. The early and large-flowered *Chimonanthus fragrans* is just opening. On a very dry bank, the rose, clover-like heads of *Grevillea Preissei* remind one how far less beautiful the commoner *G. thelemanniana* is; the abnormal-looking *Senecio pinifolia* carpets the ground underneath it, a very quaint combination, and one that lasts for many weeks.

EDWARD H. WOODALL.



ROSA SINICA ANEMONE  
(SLIGHTLY REDUCED).

are all very ornamental, and for some years I have seen one old specimen flowering abundantly throughout the whole winter. It is very hardy, will prosper in the darkest, dampest corner, and in that extraordinary frost of two years ago never even "turned a hair," as the saying is. *Dahlia imperialis* and the tall *Salvia fruticosa* are at their best just

## RECENT PLANT PORTRAITS.

THE *Botanical Magazine* for November contains portraits of the following plants:—

*Cyrtum natans*, native of Guinea.—This is a variety with pure white flowers, which is closely allied to *C. purpurascens*; it is amphibious, and is usually found in gently flowing fresh water streams.



The bulbs sent to Kew flowered in a tropical tank in September, 1900.

*Cymbidium simonsianum*, native of Sikkim and Assam.—This is not a very ornamental variety, and came to Kew as *C. dayanum*. It flowered in a cool house and is sweet scented.

*Catasetum quadridens*, native country unknown, only the male plant is known; it is chiefly of botanical interest, and does not possess much beauty.

*Laratera acerifolia*, native of the Canary Islands. This is also known as *L. phoenicea* and *Saviniona acerifolia*.—This is an extremely pretty shrub, closely resembling *L. Assurgenteiflora*, and requiring the protection of a greenhouse in winter. From the Cambridge Botanic Gardens.

*Bauhinia acuminata*, native of tropical Asia, also known as *B. candida*.—This species has pure white flowers of good size; it has been for many years an inmate of the Palm house at Kew, but never flowered till October of last year.

The December number of the same publication contains portraits of

*Iris Gatesi*, native of Kurdistan.—In point of size of flower this is as far as is at present known the monarch of the *Iris* family; it belongs to the *Oncocyclus* section of the family, and is very well represented on a fine double plate. It flowered in the open border near a south wall at Kew in June, 1902.

*Aristolelia racemosa*, native of New Zealand, also known as *Friesia racemosa*, *Triphalia rubicunda*, and *Makomako incolarum* or *Wineberry colonorum*.—This is rather a pretty dioecious

flowering shrub, requiring the protection of the temperate house at Kew, but hardy in the Isle of Wight and in many parts of Ireland; it has also a conspicuous red underleaf on the mature foliage, which is not shown on the plate.

*Cirrhopetalum Hookeri*, native of the Western Himalaya.—This is a somewhat curious little dull yellow-flowered Orchid of merely botanical interest.

*Crocea angustifolia*, native of West Australia. It is also known under the synonym of *Eriostemon Turczaninovi*.—This is a very pretty greenhouse shrub with numerous small rose-coloured flowers. The family is well known in our greenhouses through *C. Saligna*.

*Kalanchoe Kirkii*, native of Nyassaland, also known as *K. coccinea* var. *subsessilis*.—This is rather a pretty free-blooming variety, bearing large bunches of small flowers which have yellow centres and pink tips to their petals.

W. E. GUMBLETON.

## BOOKS.

### Trees and Shrubs for English Gardens.\*

—This is one of the most important contributions to the now famous *Country Life* Library, and treats of a subject which the author says "has never been so fully treated and illustrated as it deserves." We may make another quotation from the preface, and express the same wish and hope of the author, that "the book may do something to make English gardens more beautiful and interesting, and that it may lead many to see the better ways of planting, also that it may be the means of bringing forward the many trees and shrubs of rare charm that are generally unknown or unheeded. The word 'English,' of course, stands for the British Isles." It cannot be urged against this excellent work, so pictorially treated and beautifully got up, that it is not comprehensive. There are thirty-nine chapters, apart from no less than 125 pages of tables, in which are described the most beautiful of flowering trees and shrubs, arranged alphabetically, and with descriptions as clear and readable as possible without lessening their practical value. There are 130 illustrations, which have their own teaching value, and are reproduced with exceptional clearness, and the whole book is thoroughly well printed, as those who are acquainted with this library will well believe. The opening chapter concerns the want of variety existing among trees and shrubs

in the average garden. As is well said, "Even the landscape gardeners, the men who have the making of gardens, with, of course, notable exceptions, do not seem to know the rich storehouse to draw from, and a list of beautiful kinds that are not planted so largely as they should be is given with brief descriptions. It will be well, perhaps, to give the titles of the chapters. They are as follows:—Want of Variety a Blemish, Ornamental Planting in Woodland, Grouping of Trees and Shrubs, Heathy Paths in Outer Garden Spaces, Trees and Shrubs in Poor Soils, Pruning of Flowering Trees and Shrubs, Propagation of Hardy Trees and Shrubs, A Winter Garden of Trees and Shrubs, Autumn Colours, Trees and Shrubs with Fine Fruits, Weeping Trees and their Uses, The Use of Variegated Trees and Shrubs, Trees and Shrubs for Sea Coast, Trees and Shrubs for Wind-swept Gardens, Conifers (including Pines) in Ornamental Planting, Care of Old Trees, Trees and Shrubs for Waterside, Trees and Shrubs for Rock Garden, Removal of Large Trees and Shrubs, Young Trees and Sunstroke, Shade Trees for Streets, Trees and Shrubs in Scotland, Tender Trees and Shrubs in the South-West, Tender Wall Plants in the South-West, Hardy Bamboos, The Heaths, Native and other Hardy Evergreens, Shrubs for Small and Town Gardens, Shrubs and Flower Borders, Shrubs under Trees, Hardy Shrubs in the Greenhouse, Shrub Groups for Summer and Winter Effect, the Use of Hardy Climbing Shrubs, Flowering and other Hedges, Pleached or Green Alleys, the Garden Orchard, the Worthy Use of Roses, and Planting and Staking Trees. This list shows the thoroughly general character of the book, and the tables will be found full of useful information. Many of the chapters concern phases of tree and shrub culture rarely touched upon either in books or journals, and that describing the best ways of pruning will, it is hoped, be found of the greatest use to those who are quite at a loss as to the proper treatment of the many families of flowering trees and shrubs available for British gardens. The following is a description taken at random of *Pyrus floribunda* and given in the tables. (page 405):—"Country, Japan; colour and season, rose, late spring and early summer. A delightful tree, and, happily, much planted in gardens. It is quite small, little more than a graceful bush, rarely exceeding a height of 10 feet, wreathed in flowers in the proper season, the buds intense crimson, but opening out a paler shade, and thus there is a gradation from one colour to another. It should be freely grouped and planted in small and large gardens. The fruits are yellow, and about the size of a Pea. There are two good varieties, *Atrosanguinea*, which has flowers of much deeper colour than those of the type, and *flore-pleno*, or *Malus Parkmanni*, as it is more often called. This has semi-double red flowers and reddish wood and leaves," or this from the chapter upon

"A WINTER GARDEN OF TREES AND SHRUBS.

"The things that are and the things that are to be. Let us take this thought as company and try to glean some of Nature's own lessons of fitness. How instinctively we seek, for a winter ramble, the shelter of the woodland copse, which is not far distant from any English country habitation. The broad grass drive is hoar with frosty rime in the shadow of the bushes and crisp under foot. Under the trees the ground on either side is carpeted with Ivy. The lithe, trailing stems, wreathed with their shining, taper-fingered leaves, so exquisitely pencilled, are cushioned on the soft, feathery Moss, or twine in or out amongst the Hazel stocks, or creep at will up the nearest tree trunk. One can scarcely look at Ivy on a winter's day without a thrill of admiration, especially this woodland sort, for, mark it well, Nature never encourages the coarse-leaved Ivy of common cultivation within her domains. How perfect in its grace is this fine-leaved Ivy, how utterly content with its surroundings, how resolutely cheerful, be the circumstances of weather or situation what they may!

\* "Trees and Shrubs for English Gardens." By E. T. Cook, Editor of THE GARDEN. Published at *Country Life* Office, 20, Tavistock Street, Covent Garden, London; and by George Newnes, Strand.





Clinging lowly to the ground, or mounting to the topmost branch of some tall Pine, it is equally at home, and why should we not agree with that good-natured naturalist Charles Waterton in his assertion that forest tree was never injured by its clasping stems? An English plant for our English climate, it may be used to make beautiful an unsightly building, to clothe a decaying tree stump, as bush or border or mantle, in a hundred different ways, yet it is never out of character, and never touches a jarring note.

"Then those tall Hollies, see how dauntlessly they stand up above the undergrowth of Hazel. How living and warm, in their ruddy glow, are the clustering berries in the glint of the fearless leaves. For expedience sake, their lower branches have been trimmed away, and greatly we gain by it, for otherwise that lovely contrast of their ashen-grey stems would be hidden from our eyes, but over yonder a fine old Holly tree stands alone, which axe and knife have left untouched, and how graceful is the curved sweep of its feathering boughs. No foreign evergreen can excel it for symmetry of form or winter garniture of leaf and fruit. Life is astir, too, in the brown twigs of the Hazel bushes. The infant year is not more than a week or two old, yet already the tasselled catkins are swinging in the lightest rustle of the sighing wind, and begin to lift up their tiers of small woolly crows to set free the yellow pollen dust. And so we may go on our way, and, at every turn, some rugged Yew, or clump of red-stemmed Scotch Fir, or tapering Spruce with hanging russet cones, will stay our steps, and if we look and listen they will tell us in their own way the story of their perfect fitness for our homely English landscape. Or, if we chance to be in one of the chalky districts of the South Downs we may come upon Box, the ever young, as it was called of yore, or Juniper, in its bloom of silver-grey, as precious as any, to add to the tale of our best native evergreens . . ."

Seekers after knowledge concerning trees and shrubs will find a storehouse of information in this volume. It is a work that should be in every horticultural library.—T. R.

**Snowdrops.\***—In this pretty little book, whose cover recalls the colouring of the Snowdrop's leaf, Miss Jackson tells, perhaps, all that there is to be said about this well-loved winter flower; about its life and growth, its beauty, its haunts and native places, its effect on the minds of poets, and the message that it bears us. The number of quotations from writers of prose and poem show, if any proof were needed, how good a place the Snowdrop holds in our estimation as a nation, and, while there is no need to sing its praises to those who care for their gardens, or have only so much as a window-box, yet they will probably find some fact or reflection, as yet unknown to them, within the two pale green covers.

## FIVE DAYS (SEPTEMBER) IN THE TULBAGH VALLEY.

### THE GARDEN OF CAPE COLONY FOR BULBOUS PLANTS.

THE Tulbagh Valley is remarkable for its fertility. The farmers are largely interested in the cultivation of the Vine for wine making and *dop* (brandy). The valley is enclosed on three sides by mountains, and is about ten miles across and about the same in length, opening into an extensive country to the north. The soil is a good sandy loam, and capable of growing all kinds of crops. The farmers are all well to do. Of late years the phylloxera has done great damage to

"Snowdrops." By Edna V. Jackson. London: S. W. Partridge and Co.



WYCH ELMS BY HEDGEROW. (From "Trees and Shrubs for English Gardens.")

the Vines, and the crops have been light in consequence. There is a talk of adding Tobacco to their culture. At present the farmers grow their own Tobacco, and cure it in the following way: When ready to cut the whole plant is tied up in bundles and hung in sheds till quite dry. Then the leaves are stripped off, wetted, and laid in boxes, and when it heats removed and spread out thinly on the floor to cool, then replaced in the boxes till it again heats, when it is spread out, and this process goes on till all fermentation ceases. When it is made up in rolls for daily use I tasted this home-made Tobacco and found it very strong and full of nicotine. To those in England who have a fancy for Tobacco growing this information of how the Boer manages may be useful. On my return journey to Cape Town an English Cape farmer of Wellington joined me in the carriage. Very soon his pipe and Tobacco pouch were in evidence. I picked up the latter and found a very nice cut indeed, and on tasting it remarked about its extreme mildness. He replied, "I smoke this from morning to night without the slightest injurious effect; no dry throat in the morning or bad taste in the mouth." "If," added the farmer, "I smoke a pipeful of English or American Tobacco my tongue suffers badly." On further enquiry I found that this Tobacco was sold at 3s. per lb. under the name *Rising Sun*, and is grown and manufactured at Hertzog, Cape Colony. This may be useful information to those devoted to the weed, and the more especially as South Africa may be looked upon as one of the great Tobacco-growing countries of the world in the future. I may add that when smokers get over the prejudice to South African Tobacco they smoke no other.

### IN QUEST OF BULBOUS FLOWERS.

I must apologise for writing about Tobacco in a paper on bulbous plants. In company with the Master of the Supreme Court, Cape Town, I went on an expedition to Tulbagh to find *Lachenalia aurea*, and failed, but we found other *Lachenalias* and many interesting bulbs in flower, and others which would flower later on. At Winter Hock, upon the farm of Mr. Low Smith, the Green *Lixia* grows in profusion. He permits collectors of bulbs on certain portions of his mountain slopes, but there is one part none are allowed to trespass upon, as here the finest form is found. This he keeps sacred

to himself and friends. Unfortunately, we were rather early, so could not judge on the differences existing amongst this unique species. On the Winter Hock Farm I saw many interesting species of bulbous plants, but the day was closing in upon us so our stay was short, as one more visit had to be paid before we left the valley, and we had a long ride before reaching our hotel. On reaching my excellent friend's house the master chided me for not keeping my promise to spend some days with him. I did feel a bit ashamed, and said, "If you will come to the hotel in the morning I will spend a few days with you as soon as I see my friend off to Cape Town." True to promise Mr. le Roux came for me, and we returned to his La Rhone Farm, where I remained three days in the bosom of a charming Boer family, and found the girls accomplished musicians, quite musical, consisting of ten children, the eldest son being at college. Opposite the farmhouse stood a venerable Oak, 215 years old, which as a sapling had been carried on horseback a great distance, I think from French Hock, the early settlement of the French Huguenots. The tree is historical, and the family are proud of it and of their pure Huguenot blood. To see the large family gathered together with the kindly faces of father and mother, and the patriarch (the grandfather) at the head of the table asking a blessing on the food, and returning thanks at the close of the meal, brought to my recollection Burns' "Cottar's Saturday Night."

The younger boys were much interested in my work, and one or other accompanied me in my rambles on the flat ground. I was anxious to see what grew on the mountain slopes, and Mr. le Roux drove me as far as was possible, and we searched about, but found little that was novel; no doubt it was a little too early. The bulbous plants I found most abundant on the flat ground, growing in the moist, sandy, stony loam. The yellow *Ornithogalum* was very plentiful, and I could not resist the temptation to collect a quantity. It was growing in masses, and made a beautiful picture; the bulbs were rarely more than 1 inch deep, measuring from the base of the bulb, which is small, and, strange to say, the strongest plants had the smallest bulbs. In height I saw none more than 6 inches high. I am told it can attain a height of 12 inches, but in all the spots where I found it none exceeded the height named. Close by, but rarely amongst the yellow species,



grew one about 1 foot high. *O. aurea* ranges from primrose-yellow to the deepest orange, but the palest colours are the least common. I would recommend *O. aurea* to be grown in pots of from six to twelve bulbs, and even in pans of twenty-five to fifty for effect. It is seldom seen in our greenhouses, and I feel sure, if well shown at the Royal Horticultural Society, it could not fail to become a favourite. In my rambles I came upon

#### A GOOD WHITE LACHENALIA,

some bulbs of which I collected, and other species of *Lachenalias*, such as *L. orchoides*, *L. purpureo-cerulea*, and *L. anquinea*, but not in any quantity, so did not collect any. *L. orchoides* is interesting to collectors, but can never be a favourite. I suggest the following to those willing to take up the family, and feel sure they will not be disappointed with them, say, six in a 5-inch pot, and handled as Mr. Martio has recommended in a former number of *THE GARDEN*: *Lachenalia aurea*, *L. contaminata*, *L. glauca*, *L. Orthopetala*, *L. pedula*, *L. pallida* (very fragrant), *L. pustulata*, *L. purpureo-cerulea*, *L. reflexa*, *L. rubida* (very early), *L. tricolor*, *L. uniflora*, *L. liliflora*, *L. racemosa*, and *L. rosea* (a beauty). There are others, but not having seen them I pass them over. *Oxalis* in every shade of colour, *Romulea* in many shades, tuberous-rooted *Pelargoniums* in many species (one I saw with flowers as large as the prized *Pelargoniums* of our greenhouse), *Terrestrial Orchids* abundant, *Sparaxis* ranging in colour from snow-white to the richest colours, all varieties of *S. grandiflora*. The scarlet *Ixia* was abundant. This species I do not remember having ever seen in cultivation, and I fancy it is peculiar to Tulbagh. I regret not having collected some bulbs. *Morea Pavonia* in all shades from white to deep purple, always with the dark blotch on each petal; other species of *Morea* were abundant everywhere; *Satyrium* in yellow, red, brown, pink, salmon, and striped pink and white; *Homeria elegans* abundant; *Gladiolus alatus* in great patches very striking with its brick-red flowers, sparkling as if coated with gold dust, lower petals green-yellow tipped brick-red; *Babianas* in all shades from blue to rich crimson-scarlet; the Fly-catcher in patches, the large purple-flowered variety in the distance looked like Poppies, the leaves sparkling with dewdrops; *Wachendorffias*, yellow and brown varieties, some of them 3 feet to 4 feet high; blue *Aristea*, *Hamanthus* everywhere, with their pair of large flat leaves resting on the ground, while another largish leaved plant with four leaves on the ground, I suppose a *Brunsvigia* (these two latter were not showing their flower-scapes); *Ixias*, large-flowered species, ranging from white to yellow; *Watsonia rosea*, large breaks near the water, and the brown and scarlet forms of *W. mariana* in great masses; *Albuca minor*, *Hypoxis* from yellow to the large white species *H. stellata* and *elegans*, with its black ring at bottom of petals shading off to olive-green; *Aponogetons*, wherever there were pools of water; *Gazania*s, very abundant; *Mesembryanthemums*, large yellow, white, purple, and rose-flowered species, with thick fleshy leaves, and a smaller species in the same way, but more compact in growth. The shrubby *Mesembryanthemums* were just opening, so I missed the wonderful range of colour in this great South Africa genera.

I was much pleased to see *Kniphofia* in its native habitat, that is, in marsh ground; the leaves and growth were abundant, but not so effective a plant as in our gardens. I was disappointed at its sparse flowering. Had the flower spikes been as abundant as in our garden the sight from the immense quantity of plants would have made a grand effect with, say, a few thousand Red-hot Pokers. To the foregoing I will name a few additional species I saw at Tulbagh, and not being quite sure of their names submitted them to Mr. Chalwing of the Municipal Gardens, Cape Town, to name: *Geissorhiza obtusata*, hirta and bracteata, *Sparaxis bulbifera*, *Baeometra columellaris*, *Lachenalia Anquinea*, *Melanthium* sp., *Morea edulis*, *Babiana villosa*, *Albuca* sp., *Pelargonium* sp. (the large-flowered one referred to above), *Bulbinella caudata* and *triquetra*, *Hispanantha falcata*, *Bobartia gladiata*, *Hexaglotis longifolia*. In addition to the above-named bulbs there

are flowering plants innumerable. As for the bulbs put the pick in the ground anywhere and up they come; no doubt successors in flowering to the ones at the time in bloom. The flower-heads of *Kniphofia* were short and stumpy, but from the leaves should say the species was *K. Uvaria*.

A botanist working the western flora of Cape Colony should pass over the ground several times during the flowering season. Thus, Cape Peninsula, Table Mountain, Lion's Head, Lion's Rump, Signal Hill, and extend his visits to Houttes Bay, leaving the Peninsula, Stellingbosch, Paarl, amongst the late Mr. Rhodes' farms, Wellington, Tulbagh, Ceres, and Worcester; and if a good walker, with staff in hand and knapsack on back, timing himself to hit a farmhouse for sleeping quarters he could make a unique collection of Cape flowers, and I do not suppose at any farm he would be refused hospitality. The Boers are a hospitable race. On all the mountain ranges of the Western section of Cape Colony *Disa grandiflora* may be found in abundance along the sides of mountain streams, and *Nerines* on the ledges of the rocks. Amongst *N. sarniensis* an occasional snow-white albino is found, and besides this many shades, from the dark scarlet to almost white. The growth takes place when the winter rains prevail. The hot summer sun dries up the leaves, and then follows the flower. The bulbs grow in crowded masses with next to no soil about the roots.

Mr. Ellantyne, at Baron Schröder's, in his handling of *Nerine Fothergilli* hits off as near as may be the conditions under which *Nerines* are found in Cape Colony. It is curious that *N. Fothergilli* is unknown in Cape Colony. Can any of your correspondents explain this? Surely some record of its first coming into cultivation can be found. Mr. Arderne, The Hill, Claremont, has three bulbs of the snow-white *Nerine sarniensis*. On one occasion he explained to me how he secured them.

PETER BARR, V.M.H.

Cape Town, South Africa.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### PEAS IN 1902.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—The article on this subject in *THE GARDEN*, page 383, was most interesting to those who grow vegetables and need the best varieties, and the remarks made were to the point. A large grower like Mr. J. D. Pearson hits hard when he says many gardeners will order nearly every Pea one has in the catalogue. Now, I should have thought that gardeners knew better nowadays with so many advisers, and certainly they ought not to be called gardeners who do this; still it is refreshing to get these facts so straight from Mr. Pearson. My difficulty is that I often restrict too much, and find that at times a certain variety must still have preference, but here again this fully coincides with Mr. Pearson's remark that some Peas will succeed on land where others fail. I may go farther and assert that kinds which do well in a good loamy or moist soil fail in a thin gravelly one. In the Midland counties I used to rely chiefly on Veitch's Perfection. This was in a good deep soil, and I never saw finer crops, whereas here at Syon in a thin soil on gravel this variety fails. I have only one more remark to make, and that is, all gardeners do not study vegetable culture. Some rely upon catalogues for advice, and where so many varieties are given it is difficult to pick out the best.

I thoroughly agree with the remarks as to sowing and giving more space, not only between but in the rows. The seeds often touch, but this is a mistake; and another point is that there must be good cultivation. The Sweet Pea has made much progress of late years, because it has had more attention, more space, and more food. Give the culinary Pea the same chances and an equal

return is obtained. I do not notice that Mr. Pearson touches this latter point—that is, more space for the seed; but it is equally important, and when any doubt exists as to the seedlings being vigorous it is an easy matter to thin the plants when they are large enough. For years, in my notes on Peas, I have pointed out that the small round-seeded white Peas are not worth sowing; indeed, I go farther than Mr. Pearson, who says unless it be for autumn sowing, and even then I would sow the early wrinkled varieties in preference. We now have many fine types of early Peas, such as the Daisy type, that there is no room for the small white-seeded forms. I am glad the writer gave us the list he did. So far our best early wrinkled Pea is Harbinger. It has few equals as regards crop, and it may be sown in the autumn with perfect success in well-drained soils. For years I have discarded American Wonder, and it is strange that seedsmen retain it in their catalogues, as there are so many better ones. I do not send this note to condemn any one variety, but to point out the merits of those that are good. My opinion of the Laxton two—that is, Gradus and Thomas Laxton—is similar to Mr. Pearson's; they are grand, and I have grown Gradus in well-drained soil as a first early with every success. There is no need to grow poor varieties now, and the dwarf mid-season varieties are splendid for crop and quality, and, again, how good the forms are of the later or the Ne Plus Ultra section that have been selected. Some of the newer varieties, such as May Queen, Early Giant, and Prizewinner are splendid introductions. Again in the mid-season, we have some very fine kinds, and of the late varieties, such as Late Queen, Continuity, and the well-known Autocrat and Michaelmas Pea are of great value.

G. WYTHES.

### PERGOLAS AND THEIR BEAUTY IN ENGLISH GARDENS.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—Of late years the appreciation of pergolas as ornamental and useful features of English gardens has greatly increased, much to the benefit of the appearance of the grounds, in the opinion of those who are well qualified to pronounce judgment in such matters, where these structures are artistically designed, clothed with flowering climbers, and placed with due regard to their fitness for the position they occupy. There naturally occur instances where pergolas are out of place, but bad arrangement is noticeable every whit as much in beds and borders as in the sites chosen for pergolas, and it would be as reasonable to banish borders and beds altogether, because in certain cases they offend the eye as to decayed pergolas *en bloc* because the position of some is ill-considered. There are pergolas which apparently have been dropped casually out of the sky, so little reason is there for their location, leading from nowhere to nowhere. Such a structure is an eyesore, but if, previous to erection, its situation is carefully considered by the trained artistic eye its effect will not fail to add to the attractions of the garden. Grounds differ so greatly in their individuality that it is impossible to lay down any hard and fast rule as to the most suitable positions for pergolas, but if the site be well chosen any fair-sized garden will gain and not lose by the presence of a tastefully constructed one. In examining the profitability of pergolas, however, their value in artistic garden design must not alone be considered, but also their usefulness. Miss Jekyll in her admirable article on "The Pergola in English Gardens," which first appeared in the *Journal of the Royal Horticultural Society*, and was afterwards reprinted in these pages, speaks of its utility in providing shade so often grateful in summer heat. That the value of shade was fully recognised by our forefathers we have evidence in the pleached alley, which, in the old days, none of the best gardens lacked. These pleached alleys were merely passages enveloped in foliage, not permitting those glimpses of the surrounding garden that may be obtained between



the uprights of the pergola, and being also inferior in beauty owing to the exclusion of flowering subjects from their covering. However, they provided what was then deemed requisite—a shaded walk. Now, although it will be freely allowed that shade is not so needful under the too often grey skies of England as in the sunnier south, all summers are not like the past, and there are seasons when day after day the sun, whose rays may be uncomfortably powerful even in the British Isles, shines fiercely down from the unclouded heavens, and when I firmly believe shade is welcomed by the great majority of the dwellers on our shores. That there are, however, exceptions I gather from an article (page 360) appearing above the initials "E. K. R.," in which the following sentence occurs: "The pergola . . . is an artificial structure which has no meaning or utility in a British garden." In the colder northern counties and on the bleak east coast the value of a pergola may be less appreciated than in warmer localities, though I must confess that there have been sunny days in Scotland and in Suffolk when I should have been thankful for shade, but the sentence I have quoted refers evidently to the whole of England, and is not put forward as a mere expression of individual opinion but as a fact admitting no denial.

If a statement be only made with sufficient assumption of authority there are those who will accept it as gospel, and it is quite possible that one who chanced to come upon "E. K. R.'s" sweeping assertion of November 22, without having read Miss Jekyll's article on the utility, rightful construction, and furnishing of the pergola in the two preceding numbers might conclude that these structures were a mistake. Unfortunately, at the present time your correspondent has the weather on his side. In December days, when ulster collars are turned up to the ears, and, despite heaped-up coal, the room is chilly, it is no time to talk of pergolas. The very name makes one shiver. But on a sultry August afternoon, when the sun beats down relentlessly from a cloudless sky and wavering exhalations flicker upward from the parched earth, it is another matter, and I venture to opine that the adherents to "E. K. R.'s" dogma would then be few and far between. Uselessness, moreover, is not the only fault that the writer alluded to has to find with pergolas. According to him they are disfigurements to gardens, for we read: "In ninety-nine cases out of a hundred the

pergola gives a 'tea garden' aspect to grounds. You suspect . . . a white-napkin'd waiter round the corner." Here, again, the law is laid down as by one having authority. There is apparently no question of the possibility of any other view. Pergolas are useless and disfigurements, for what can be a greater disfigurement to a garden, which the spirit of restful loveliness should invest, than a structure suggestive of a hurrying *garçon*. Naturally, I feel somewhat diffident in dissenting, however feebly, from statements advanced as incontestable facts, but, remembering the many who have advocated pergolas in these columns, writers of repute with no axe to grind—I entirely acquit "E. K. R." of the possession of this tool—but actuated merely by the wish to aid amateurs and others in the beautifying of their gardens, and remembering also the numerous charming examples I have myself seen and the attractive pictured representations of others that have from time to time appeared in *THE GARDEN*, I cannot permit these strictures to pass unchallenged.

I am of the opinion, with which I hope and believe most readers will coincide, that well-designed and tastefully planted pergolas add much to the charm of our gardens, and also that in hot summers they become useful as well, because of the shade they afford. The complaint is made that pergolas are artificial. Naturally, they are artificial, but surely this is no objection to them, since it is by their artificial aid that we are enabled to grow flowering climbers that otherwise would have no opportunity of displaying their beauty.

If pergolas, trellises, arches, pillars, and such-like artificial erections were swept away climbers would be necessarily banished entirely from some gardens, and in all they would be greatly diminished. I yield to none in my admiration of a Rose garlanding the head of a tree with a very cascade of swaying, blossom-laden shoots, but if we refuse to grow any climbers except on trees we shall be the losers of much beauty, for in the garden proper such opportunities are by no means frequent, whatever they may be in the wild garden. Artificial structures soon lose their appearance of artificiality under the veil of flower and foliage that hides the supporting wood or metal from sight and then cannot offend even the most fastidious eye.

S. W. FITZHERBERT.

[We think "E. K. R." had in mind the wretched rustic affairs that do suggest a tea garden, other-

wise he would not have condemned the many beautiful pergolas in English gardens, grateful retreats from hot sun and the home of climbing plants of many kinds. Pergolas well placed and well made add much to the beauty of a garden, but the reverse when used without meaning and constructed without any knowledge of the way such structures should be built. The articles by Miss Jekyll recently published in *THE GARDEN* are an expression of our views of the importance of the pergola in English gardens, and those who contemplate making a pergola should carefully read what is there written.—Ed.]

## THE FRUIT GARDEN.

### THE FAMOUS HAMPTON COURT VINE.

OF remarkable old Vines in this country that at Hampton Court is perhaps the most famous, and is an excellent example of the longevity of the Vine even under artificial conditions. Even now this Vine, although considerably over a hundred years old, annually bears more or less heavy crops of Grapes of excellent quality. The variety is Black Hamburg. A few years ago the border was renovated, and with the greatest benefit to the old Vine; the constant training in of young wood also has greatly assisted to maintain its fruitfulness. T.

### THE APRICOT UNDER GLASS.

It is only on a limited scale that the Apricot has hitherto been grown under glass in this country for dessert, the reason being, I suppose, that for this purpose it has not been sought after so much as the Peach and the Nectarine, and also for the reason that the tree is not so amenable to treatment under glass as most of our other hardy fruits, and especially so when grown in pots as an orchard house tree. Fair success may be obtained by this method of cultivating the Apricot, but it is necessary to observe great care, especially at the time the trees are in bloom, when a free circulation of air is absolutely necessary to a good set of fruit, and high inside temperature must be guarded against. A glass-covered wall or a house is usually employed when given over to the growth of this rich and delicious fruit, as when grown in this manner the quality, size, and flavour of the fruit are immensely improved. One characteristic of the fruit must be taken note of before it can be successfully grown under glass, and that is that it is most impatient of the least semblance of forcing in the early stages of its growth, and those contemplating its culture under glass must bear this in mind if success is to be attained. The late Mr. Ewing, Bodorgan, Anglesea, used to devote one of his then famous glass walls to their culture, and succeeded very well; but not at first, when the attempt was made on the glass walls without fire-heat, on account of the amount of condensed moisture in the house, which, at the time of the year when the trees were in bloom in the moist climate of Anglesea, could not be removed, and, consequently, the bloom did not set well. However, this difficulty was removed on the introduction of a flow and return hot-water pipe, which, however, was never used except when the trees were in bloom, and that in conjunction with as much air as could be admitted when dry enough. Good crops were afterwards secured, although from my experience of the Apricot it does not bear so freely under glass as it does out



THE FAMOUS OLD VINE AT HAMPTON COURT. (Planted about 140 years ago.)



of doors. The best examples of this system of culture used to be found at Welbeck Abbey, the seat of His Grace the Duke of Portland, where a large extent of glass-covered walls was devoted to their culture. The important points necessary to bear in mind in the successful cultivation of this fruit under glass are to keep the house fairly cool at all times and not to use fire-heat, except when the trees are in bloom, and then only in conjunction with as much air as can be safely given, remembering that the atmosphere of the house, at least for a few hours in the day, should be dry, when the bloom should be fertilised by being gently brushed over with a camel-hair pencil or a rabbit's tail. When a crop of fruit is set and the final thinning is over, the crop may be hastened by closing the house in the afternoon, but not too early, syringing, of course, before closing. In this way, by utilising sun-heat, ripe fruit can be had three weeks or a month before it is ripe out of doors. The quality and flavour of this fruit are so much improved when grown under glass that a house or two devoted to its culture should be included in every good garden.

The following varieties are the best known and most reliable:—

*Frogmore Early*.—Of the early varieties this is the most reliable and best for its season.

*New Large Early*.—Richly flavoured and sweet. Improvement on the Old Large.

*Gross Pêche*.—Of large size and delicious flavour, one of the best for dessert.

*Oullin's Early*.—One of the earliest and sweetest; a great bearer.

*Shipley's*, or *Blenheim*.—This is a very desirable variety, being of good size, early, and one of the hardiest. One of the best for planting in the colder counties.

*Moor Park*.—The best known and most generally grown of all. It is of large size, splendid flavour, and comes in midway between the early and late varieties.

*Hemskirk*.—One of the most hardy and vigorous, well suited for the most northern counties. It is earlier than Moor Park. The fruit is very handsome, flesh tender, with a rich and delicious flavour.

*Powell's Late*.—As one of the latest varieties, too much cannot be said of this grand sort. It is the most hardy and free bearing and free growing Apricot we have. The fruit is large, highly coloured, and of rich and sweet flavour.

*Large Red*.—This is another excellent late variety of fine colour and size, as its name indicates.

*Beaugé*.—This is perhaps the latest of all, and is of the Moor Park breed. Very useful for extending the season for dessert and for exhibition purposes.

*Roman*.—Of large size, good grower, flavour slightly and pleasantly sub-acid. One of the best for preserving.

*Turkey*.—Smaller than the above. It is very prolific, not unlike the Roman in flavour, and is much sought after for preserving.

*Breda*.—A small hardy variety, suitable for growing as bushes, pyramids, or standards in the open quarters of the garden. A. P. H.

## HARDY FRUITS IN SEASON.

### PEAR HUYSHÉ'S PRINCE CONSORT.

THIS Pear is seldom seen at exhibitions or named in notes about Pears, possibly because its appearance is somewhat uninviting, and its flavour in some cases cannot be good, i.e., if it deserves the condemnation it received in the report of the committee of the National Pear conference held at Chiswick in October, 1885, viz., that of being "watery and worthless." Certainly, when at its best its flavour cannot quite compare with that of a good Doyenné du Comice, Thompson's, or Marie Louise, but then few can. With us, however, grown upon a south-east wall, in heavy soil, and worked upon the Quince stock its flavour is decidedly good; indeed, better than that of many varieties usually classed as first-rate, while its flesh is melting and of delicate texture.

It is not likely to impress judges who make appearance a leading point, owing to its greenish colour, which is freely speckled and slightly bronzed on the exposed side of the fruit. It is large, long, pyriform in shape, resembling in a measure General Toddleben, and its season is the end of October and beginning of November. The tree in our case is not robust in habit, but forms spurs freely, and is a very early, constant, and heavy bearer, its young wood producing fruit buds even to the detriment of the satisfactory extension of its branches. We have not grown it as a bush or pyramid, but probably it would succeed in this way, at any rate in warm districts, and its habit indicates that it would make a good cordon.

### PEAR MARIE LOUISE UPON NORTH WALLS.

THE season of such an excellent Pear as Marie Louise cannot be too much prolonged. It can—as is well-known and generally practised—be considerably extended by gathering the fruit, even that from a single tree at various intervals, as also by growing trees of it under varied conditions. The north wall, however, is not so often utilised for this purpose as it might beneficially be, at least in southern and western districts. Here Marie Louise does well under such circumstances, but it cannot be said that the fruits attain so large a size as those that are produced upon more favourable sites, although its flavour is excellent, and it is clean and very russety. At the present date (November 22) we have gathered the last fruits, when the season of those grown under more favourable conditions are almost over. Trees planted against north walls are later in flowering than are those that are placed in warmer aspects, and this fact, together with that of the blossoms being shaded from early sunshine, are advantageous in so far as frost is concerned.

Monmouth.

T. COOMBER.

## GARDENING OF THE WEEK.

### THE FRUIT GARDEN.

#### EARLY CHERRY HOUSE.

WHETHER the trees for providing ripe fruit early in May are planted in borders or placed in pots, they should—if it has not been already done—be cleansed in a similar manner as has been advised for Peaches, and be given atmospheric conditions suitable to their necessary slow progress. Commence forcing, if the term may be used, by closing the house at night, and ventilating it freely by day in mild weather, employing artificial warmth only where it is necessary to do so in order to maintain a temperature of about 40°. When the influence of the sun affects the temperature, admit air when it reaches 50°, and permit it with freely increased ventilation to reach 70°, gradually decreasing the ventilation, as the temperature declines, until it falls to 55°, then close the house for the day. These conditions will cause safe progress, and should not be exceeded until the buds begin to swell freely. Avoid a free use of the syringe, but promote a moderate degree of atmospheric moisture by damping the floors, &c. of the house, and the trees also in favourable weather, early enough in the day for them to become dry before night. Keep the borders or soil in the pots, as the case may be, moist; at the same time guard against excessive wet, which would discourage root action.

#### PEACHES AND NECTARINES IN POTS.

Where trees of this description are employed for producing an early supply of fruit—and under good management they answer admirably for this purpose, and afford, provided the varieties are suitably selected, a lengthened succession of fruit—they should now receive attention. If they were as they should have been, top-dressed, pruned, and cleansed in early autumn, their roots will have already taken possession of the fresh compost used for top-dressing, and they may be at once placed

indoors without further attention to these matters. Until the buds begin to move, exercise patience by keeping a night temperature of about 45°, that for the day being 5° higher; at the same time make judicious use of the syringe, but regulating its employment in agreement with external conditions, and at all times permit the buds to get dry before nightfall. Keep the ventilators more or less opened continually in mild weather, but allow the temperature to reach 65° from sun-heat. Little artificial warmth will be necessary during the early stages of development.

#### CUCUMBERS.

Climatic conditions during winter are unfavourable to the well-doing of Cucumbers, and necessitate very careful management to ensure sufficient vigour in the plants to enable them to yield even a moderately regular supply of fruit. The bottom heat should be regularly kept at about 80°, and the atmospheric night temperature at from 60° to 70°, in agreement with the state of the weather, with a day rise of about 5° by artificial means, and a corresponding rise from sun-heat.

T. COOMBER.

The Hendre Gardens, Monmouth.

## INDOOR GARDEN.

#### TREE CARNATIONS.

THESE subjects form one of the choicest of flowers we have for cutting at this dull season of the year. They will now be flowering freely, and every encouragement should be given them to lengthen the period of blossoming, and assistance given to bring out the quality of bloom. Liquid manure and soot water may be applied in a weak state occasionally; but in no case should a gross soft growth be encouraged. Sufficient fire-heat should be applied to maintain a night temperature of 50° to 55°, the last named in mild weather, with a corresponding rise of 7° to 10° during the day. Afford plenty of air so as to prevent the condensation of moisture, as the Carnation cannot bear a close atmosphere. Only in frosty or foggy weather need the ventilators be kept closed.

#### VIOLETS

in frames will need plenty of air given them in mild weather to prevent damping or undue excitement of the plants. Keep the frames close in foggy weather, but the sashes may be entirely removed during sunshine. Attention must be given to cleaning and lightly stirring the soil, and if watering is necessary it should be done with a small spout water-can in order to keep the leaves dry. Cleanliness of the glass, for the full admission of light, is a more important detail in the winter management of Violets than is generally thought.

#### CINERARIAS.

Admit abundance of air while the weather remains mild, and choose the early part of the day for watering. Do not allow the plants to become dry at the root, and give frequent applications of manure water to plants showing their buds until the flowers show colour, and it should then be discontinued. Rain-water is preferable, as hard water will retard free growth. Plants growing in lean-to houses should be turned regularly to prevent them growing one-sided. Fire-heat should only be applied to keep out frost. Keep a sharp look out for aphids, to the attacks of which Cinerarias are especially liable.

#### CAMELLIAS.

Great care must be taken with the watering of these plants, for the giving of either too much or too little will cause the buds to drop off. Weak liquid manure made from sheep dung and soot will be of great advantage to plants that are confined in pots and tubs. If large flowers are required, then each shoot should be allowed to carry but one bud. In other cases, two buds may be left. Thoroughly sponge and cleanse the foliage and stems, using warm water and soft soap.

JOHN FLEMING.

Wexham Park Gardens, Slough.



## THE ROCK GARDEN.

## THE ROCK GARDEN IN NOVEMBER

**R**OCK GARDENS in November cannot be expected to be full of bright flowers, especially as cold winds, sharp frosts, and heavy rains have held their sway and worked sad havoc among our favourites. In many instances, however, bright flowers—though they may be scarce—are not entirely over.

*Helleborus maximus* has opened into bloom this month, and is flowering abundantly. The bright scarlet

*Schizostylis coccinea* is still holding its own here in the west, and even the still brighter scarlet of *Lobelia cardinalis* may be seen here and there. That handsome rock shrub

*Convallaria Cneorum* is still showy with its blush-

have at this time of the year bright hues of foliage. These would be quite as attractive in a rock as in the wall garden. To these I will now add a few others which are more specially adapted to adorn the rock garden in winter.

*Gaultheria procumbens*, which does so well in a half shady or boggy place, is now at its best, being studded with numerous bright scarlet berries and dark bronzed foliage.

*Peruettya mucronata* is a rock shrub of a bolder type, but most suitable to form the background. It loves peat, and, as a rule, its large berries are produced most abundantly, and are a great attraction through winter. Red or purple are the prevailing shades of the berries, but since numerous hybrids have been raised plants with berries of bluish white, dark red, and crimson contribute quite a variety of colour, and there is certainly something very neat about these Myrtle-leaved plants clustered with berries in various shades of colour.

*Enothera speciosa* must also be mentioned as an attractive plant during November. Not merely on account of its flowers—indeed, these have

passed long ago—but on account of the beautiful bright scarlet with which its leaves are margined and blotched. As the plant is naturally of a semi-prostrate habit, these pendent shoots in their autumn tints are quite a picture where they have a chance of falling over bold crags of rock.

*Euphorbia Myrsinites* is another plant which, though not in bloom, is handsome just now. Its leaves do not assume an autumn tint streaked with scarlet or other colours, but they are exquisite in themselves on account of their peculiar shape and their beautiful glaucous colour.

*Herniaria glabra* as a carpeting plant is very striking in summer, but in winter its bright green carpet closely covering the ground, and scarcely half an inch high, is doubly welcome. There is a brightness and freshness about it which appeals to the eye, and presently when Winter Aconites, Snowdrops, and Chionodoxas begin to pierce its surface it will be more attractive still.

*Ajuga reptans variegata* we admire in spring for its dark blue flower-spikes; but now it is, perhaps, still more striking. Not only does the variegated foliage form a striking contrast to the withered appearance of plants generally, but this foliage has the additional charm of being margined or blotched with scarlet and purple; some of the leaves have turned purplish bronze altogether, and form a contrast to other leaves which as yet show the white and green variation.

Encrusted Saxifrages of all kinds, too, are now very attractive, from that queen of Saxifrages, *S. longifolia*, with its huge rosettes of silvery grey, down to the minute *S. valdensis*. The silver-grey of their foliage looks brighter now than during summer, when their modest colouring was eclipsed by hundreds of other flowers of brighter hues.

*Arum italicum* is one of the most striking objects just now. Its large leaves have not died down, but show their beautiful network of white or creamy yellow veins more distinctly than ever. This does best in a half-shady nook where it can have moisture.

*Pestura punctoria* is never grown for the sake of its flower at all, but for its evergreen foliage. Just now it deserves more than usual attention, for its glaucous leaves, scarcely more than 6 inches high, stand out in bold relief against foliage of a dark or scarlet tint.

WORK IN THE ROCK GARDEN DURING DECEMBER.

Work in the rock garden during this month should mostly consist in giving some of the mountain gems we treasure the protection they may require during winter. In the northern counties plants like *Androsace lanuginosa*, *A. sarmentosa*, *A. chumbiensis*, and many others require the protection of a piece of glass, fastened in such a way as to allow the plants to have plenty of light and air, but to protect them against excessive rain. Other tender plants like the beautiful *Gerbera Jamesoni* might, if severe frost is anticipated, be all the better for a covering with a few branches of Spruce or Silver Fir laid over them in the manner of roofing tiles, i.e., to carry off excessive moisture without altogether stopping ventilation. Fortunate are the owners of gardens which require no protection whatever, for protecting materials are unsightly. Even the glass mentioned in the case of choice *Androsaces* may be as a rule dispensed with if the plants are not on level ground, but planted sideways, so that excessive moisture could not accumulate in the centre of the rosettes of leaves and cause decay. Of equal importance is the rule not to allow the rosettes of such plants to rest on the damp soil, but on porous stones, which would absorb the extra moisture.

Elmside, Exeter.

F. W. MEYER.

## APPLE CORONATION.

THIS is a welcome addition to the list of first-rate dessert Apples, and well merited the distinction of an award of merit made by the fruit committee of the Royal Horticultural Society on October 21 last. The tree is of compact habit and of medium growth; the fruit is fairly large, and may be described as flattish round. At first the skin is green, changing as the fruit matures to a pale yellow on the shaded side, while that exposed to the sun becomes mottled and streaked with red as the fruit ripens; eye open, and set rather deeply in a round depression; stalk straight and very slender, measuring three-quarters of an inch to an inch in length; this is set in a smooth, rather deep cavity. For table use from November to Christmas there should be a good future for this new Apple. It is of first-rate quality and an excellent flavour that reminds one of Cox's Orange Pippin, and is probably accounted for by reason of the fact that this variety was one of the parents. Apple Coronation was raised at Buxted, and was exhibited by Mr. H. C. Prinsep, of Buxted Park Gardens. The entire stock has been acquired by Mr. G. Pyne, Denver Nurseries, Topsham, Devon, who is sending it out under the name mentioned above.

## NATIONAL DAHLIA SOCIETY.

## A FEW HINTS.

THIS society, which is devoted to the Dahlia, as the name suggests, is about to hold its annual meeting. We presume this is an occasion when future work is discussed and suggestions welcomed. May we, therefore, hope that something may be done towards encouraging flowers of the older decorative sorts, with wide flat petals, as we wrote in THE GARDEN, October 4, page 225:—

"It is just these wide-petalled Dahlias that are of all their kind the ones most useful in good gardening for grand effects of colour in the late summer and autumn. It is not to be denied that the starry flowers have a prettiness and refinement of form that will befit them for



APPLE CORONATION.

white flowers in spite of the weather, and the same may be said of hardy

*Fuchsias*, which in Devon and Cornwall are blooming abundantly.

*Senecio pulcher* seems determined to die hard. At Exeter its bright purple flowers are still expanded, and more buds are to open. Of

*Campanulas*, the only one blooming here is *Campanula portenschlagiana major*. Another plant which just now is quite attractive is

*Othonna cheirifolia*. It has opened several of its yellow blossoms quite recently, and its handsome glaucous foliage forms a fine background to the flowers.

Though the flowers just mentioned are the only ones which have come under my notice, others may still be flowering in other parts, but with the exception, perhaps, of Christmas Roses, they are only the lingering remnant of beauty passed away, and the chief effects of colour in the rock garden during winter must depend on ornamental foliage or berries. In my notes on wall gardening in November I mentioned several Sedums, Saxifrages, *Arenaria*, *Plumbago Larpentæ*, and others which



the show table and for room decoration, but to let these be the only garden Dahlias that we may now have seems to us a sheer perversion of good taste and good sense. Beautiful though some of the most free blooming of them are, there is scarcely one among them that for honest and simple garden use can approach in value such of the older flat-petalled kinds as, among the reds, King of the Cactus, Cochineal, Lady Ardilaun, and Fire King; among yellows, William Pearce, Lady Penzance, and Lady Primrose; or such fine things as Henry Patrick among whites. To let this grand type of a good flower fall into disuse is to neglect some of the very best flowers we can have in our gardens.

"We cannot but think that this exclusive approval of the starry, twisted-petalled flowers among the garden Dahlias is but a passing fashion, and would earnestly counsel growers not to lose sight of the fine old kinds such as those just named. Some of the most thoughtful and practical amateurs would not on any account be without them, and, though admitting and admiring many of the starry kinds, would never allow these to claim precedence of their more useful brethren."

The Dahlia Society can do something to encourage flowers of the highest value in the garden without detriment to the merely competitive displays, in which we fear the value of the kinds there shown for the garden is never considered. Societies, in spite of the deeper interest taken in garden flowers, are too conservative, and those are wise who wake up to a sense of their shortcomings and get out of a narrow groove which will ultimately mean disaster. If a society devoted to one special flower will think a little less of the show ground and more of the garden it will win more sympathy, and therefore more supporters than the organisation wedded to the rules and routine of fifty years ago.

## MISCELLANEOUS.

### CORDON APPLE TREES.

HAVING read a letter signed "J. M." in your issue of the 22nd ult., I require the exact opposite to your correspondent, and shall be grateful if you would kindly give a list of the very finest flavoured Apples both for eating and cooking, combined with free bearing. I want to plant espaliers round my kitchen garden.

[The following are good growers and will succeed well as espaliera. They are arranged as nearly as possible in the order of ripening. They should be obtained grafted on the English Paradise stock.

Dessert: July and August. — Juneating, Mr. Gladstone, Irish Peach, and Devonshire Quarrenden. September and October. — Kerry Pippin, Worcester Pearmain, Williams' Favourite, and James Grieve. November and December. — Cox's Orange Pippin, King of the Pippins, Mother, and Allington Pippin. January and February. — Cox's Orange Pippin, Adams' Pearmain, Scarlet Nonpareil, Blenheim Orange, and Beauty of Kent. February to May. — Christmas Pearmain, Hubbard's Pearmain, Lord Burleigh, Duke of Devonshire, Rosemary Russet, Sturmer Pippin, and Allen's Everlasting.

Cooking: August and September. — Lord Suffield, Duchess of Oldenburgh, Lord Grosvenor, and Keswick Codlin. October and November. — Ecklinville, Grenadier, Stone's, Seaton House, Blenheim Orange, Lord Derby, Bismarck, and Bow Hill Pippin. December and January. — King of Tomkin's County, Lane's Prince Albert, and Royal Late Cooking. February to May. — Alfriston,

Newton Wonder, Northern Greening, Sandringham, Belle de Pontoise, and Annie Elizabeth. — Ed.]

## INJURIOUS INSECTS AND DISEASES AFFECTING FRUIT TREES.

(Continued from page 368.)

### THE VINE.

PROBABLY of all the fruits under hot-house culture the Vine is subject to far more diseases than any other. The most troublesome is that known as shanking, the next worst being mildew.

Shanking generally makes its appearance just when the berries begin to change colour, and is continued with more or less activity until the crop is ripe. It is first detected by the formation of a slender black thread round the berries, healthy growth is arrested, the stalks lose their vitality, and the berries become shrivelled and very sour. The primary cause of shanking will be found in the stoppage of a proper flow of healthy sap. This may be caused by a soil overcharged with organic matter, which condition, combined with bad drainage, causes acidity of the soil; the Vine will then develop luxuriance rather than maturity and ripeness of wood. It may be that the foliage has been destroyed by red spider, invited by too dry an atmosphere and too high a temperature. A never-failing remedy for shanking is to raise the roots and relay them in new compost composed of good virgin turf-loam.

*Mildew* (*Peronospora viticola*). — This fungus causes two forms of disease. If the leaf is attacked the disease is called downy mildew; if the fruit, it is known as brown rot. Leaves affected by this fungus show upon their upper surface spots of a greenish yellow colour, while on the under side of the leaf opposite these spots may be seen a peculiar downy or frosty growth. These spots may be quite small and few in number or very abundant, the frosty growth almost covering the lower surface. When the fungus is abundant the leaf soon yields to the disease, turns brown, and falls from the Vine. In severe cases the disease extends to the young branches. The attack upon the fruit is generally early, causing many of the berries to cease growing, turn brown, and fall off. In treating Grapes for this disease, Bordeaux mixture may be used with good effect. Early washing of the Vines is of advantage in freeing them from spores which may have found lodgment in the crevices of the bark.

*Powdery Mildew* (*Umeinula spiralis*). — This disease usually makes its appearance about the middle of summer. It attacks the leaves, young shoots, and fruits, covering them with a powdery growth. It differs from the downy mildew in covering the upper surface of the leaves with white patches of various size and shape. Sometimes it spreads quite early over the surface and resembles a delicate spider's web. It does not send filaments into the tissues of the host plant, but taps the epidermal cells with numerous minute suckers, and through these saps the adjoining cells, while all the filaments are spread over the surface of the leaf. The fruit when attacked shows upon the surface a whitish dust. This rapidly increases in abundance, and soon the berries shrivel and their skin cracks, admitting other spores of decay, which complete the destruction of the fruit. Being confined to the surface, this disease yields to the application of almost any fungicide, but flowers of sulphur is probably the best.

### INSECT PESTS.

*Red spider* (*Tetranychus telarius*). — With the exception of the phylloxera, red spider is the most general and troublesome pest of the Vine. It is not a true spider, but belongs to what are called spinning mites. It has a difficulty in moving on perfectly smooth surfaces, but by means of its claws and the pin-headed bristles with which they are furnished, it moves readily on the under side of the leaves, and fastens its threads to the hairs or slight prominences, thus gradually forming a coating of web, amongst which it lays its eggs, and under this shelter a colony increases with alarming rapidity, especially if the

house is kept hot, dry, and badly ventilated. The colour is various, depending on the nature of the food; possibly, also, in some degree on the age of the individual. The attacked leaves may be known by their greyish marbled appearance above, whilst beneath they are whitish and slimy from the covering of the web. The red spider is most injurious to Vines in hot dry weather, consequently washing and syringings, which will render the leafage and ground moist, will be serviceable. The extreme dryness of the air and soil are thus counteracted and a healthy growth encouraged, which more or less counterbalances the injury to the leaves from the suction of the mites. It is important to check the attack at the very beginning, and for this purpose syringings morning and evening are advised, sent hard at the under side of the leaves so as to break the webs and wash them down with the contained mites. Sulphur and soft soap combined in various ways are amongst the most reliable remedies.

*Thrips* (*Thrips minutissima*). — This insect is of a dark brown colour or almost black. It feeds upon the leaves of the Vine, thereby interfering with the proper elaboration of sap, and being a dirty insect it soon spoils the fruit. Like the red spider it flourishes best in a dry atmosphere. If taken in time sponging with kerosine emulsion will be found a thoroughly effective remedy.

*Mealy Bug* (*Dactylopius odonidum*). — This pest is one of the most troublesome met with in Vine culture. When once introduced it spreads from the branches to the shoots, and thence to the fruit. A good remedy is to apply a coating of methylated spirits with a soft brush. Fir tree oil and paraffin in a diluted form also causes death to the pests.

*The Vine Louse* (*Phylloxera vastatrix*). — Of all the insects with which the Grape grower has to contend this is the most terrible, and no certain remedy for its destruction has yet been discovered beyond that of taking out all the Vines and burning them, together with the soil in which they grow, thoroughly cleansing, painting, and lime-washing the houses, then replanting with fresh Vines.

Hecla Villa, Harpenden.

J. J. WILLIS.

## OBITUARY.

### E. BROWN.

IT is with feelings of much regret that many of our readers will hear of the death of Mr. E. Brown, jun., the popular and much esteemed vice-chairman of the Southampton Royal Horticultural Society, and eldest son of Mr. E. Brown, J.P., of Above Bar and Hill Lane, Southampton. His death took place quite suddenly at his residence on Thursday morning, November 27. Mr. Brown's fame as a most enthusiastic and successful Chrysanthemum grower and exhibitor is known beyond his local society, he having exhibited at the shows of the National Chrysanthemum Society and others for several years past. He was undoubtedly an example of a *bona fide* amateur, who did the whole of the work connected with his hobby with his own hands, from striking the cuttings, through all the various stages until ready for exhibition. Every operation of potting, soil mixing, stopping, was carefully recorded in a book for future reference. This year with only about 130 plants, he was able to exhibit twelve blooms at the October show of the National Chrysanthemum Society, twenty-four at Portsmouth, seventy-eight at Southampton, and twenty-four at Winchester, securing seven firsts, one second, and one third prize; also winning at Southampton two silver medals, one as the most successful exhibitor in the gardeners and amateurs division (beating in that several well-known gardeners), and a silver medal in the division open to amateurs only. Mr. Brown, who was only forty-seven years of age, was very greatly esteemed by many horticultural friends. He was also a very popular member of the Hampshire Imperial Yeomanry, of which he was the regimental sergeant-major. — C. S. F., in *Gardeners' Chronicle*.



# THE GARDEN

No. 1622.—VOL. LXII.]

[DECEMBER 20, 1902.]

## A MEETING OF ROSE GROWERS.

ON Thursday in last week the National Rose Society held its annual meeting, which is always one of the most refreshing events of the busy horticultural year. This meeting was more vigorous than usual, and one left the room with a sense of satisfaction that the society, with its excellent past, is likely to have an even more creditable future. A full report is given on another page, and from that it will be seen that there was a sheaf of proposals of one sort and another, but to us the words of the chairman, Mr. C. E. Shea, were quite as weighty as the demands for a two days' exhibition and for postponing the date of the metropolitan show from the first to the second week of July.

It was necessary this year to use the guarantee fund to save a financial deficiency; the falling off in the attendance at the Temple show was attributed to the Rose conference shortly before at Holland House and to the illness of the King, with which we in part agree, but something may be said for the monotony, not to say tiresomeness, of many present-day exhibitions. The chairman told the Rose Society to wake up and model the exhibitions more upon the lines of those abroad, and "cater for a wider public." He urged the importance of showing the Rose in pots, as climbers in full flower glory, arches, and in every way to please and instruct those to whom the serried ranks of specimen blooms are of little interest.

THE GARDEN has never wearied of urging the framers of schedules and all interested in the various societies in these isles to give as much variety to the displays as is consistent with financial considerations. We are aware of the difficulties to face, but Mr. Shea's remarks were quite opportune, for the society is looking for support, not to the exhibitor merely, but to those who care little whether certain flowers of Anna Olivier or any other variety have a better "finish" than those in the neighbouring stand.

When we write this it must not be inferred that we wish Rose exhibiting were a thing of the past, for we take great delight in these annual tournaments of flowers, and hope shortly to start a series of articles on the fascination and recreation accruing to such a pursuit, but the larger and increasing number of amateurs who have no ambition to win

prizes but are interested in the show provided for their inspection must be considered, too, and the flower represented in its most charming aspects.

At the Temple shows of the Royal Horticultural Society the beautiful Rose displays are the centre of admiring crowds, and the lovely climbing hybrids and others there shown in pots should be seen in all their beauty at the exhibition of the National Rose Society, which has no other object than to encourage the general culture of the flower.

The excellent secretary, Mr. Edward Mawley, in the report of the past year, referred to the increase in the number of subscribers. The subscriptions are as follow: 1898, £373; 1899, £384; 1900, £391; 1901, £458; 1902, £566; and the strength of a society is in the number of its supporters, which in the present instance totals 890.

The National Rose Society is accomplishing quietly a great work in issuing to the members simple treatises about the culture of the plants, and the official catalogue—the fifth and revised edition of which has recently appeared—is a trustworthy guide, with selections of varieties for exhibition, standards, pillars, arches, walls, bedding and pot culture. We believe these pamphlets to be a tower of strength to the society, as the advice there given is so simple that the intelligent beginner is enabled to avoid failures which growers in the past had to overcome by a long and an expensive experience.

The question of holding a two days' show was again brought forward by the Rev. J. H. Pemberton, who warmly supported the innovation on the grounds of greater financial profits from the exhibition, and that a wider public would enjoy the flowers. We think the experiment worth trying, but of course the exhibition blooms on the second day would not be worth one farthing to see, and to encourage a second day attendance under present conditions would be unwise. We have visited Rose shows throughout the land, and sometimes when the weather is seasonable the flowers have collapsed almost before they have been passed by the judges. The glorious silver medal flowers praised in the papers on the morning following the first day will be glorious no longer, but a huddled mass of rotting petals. Unless the trade come forward with their generous support and bring pot plants in quantity the second day of the exhibition will cause much complaint and perhaps seceders from membership.

We wish the question of an autumn exhibition had been pressed more vigorously, for this would be distinctly an amateurs' show, and appeal to those members of the society who are not interested in competitions. It was remarked that the past autumn was unusual, but surely all Rose growers know that the Tea and Hybrid Tea, and China and other groups are not in their richest beauty till the cool days of September and even early October. As the list of new varieties extends this autumn beauty of the Rose becomes even more manifest.

During the past year the society has lost, through the death of that enthusiastic amateur Mr. C. J. Grahame, a supporter whose counsel at this period would have been of much benefit, for Mr. Grahame accomplished for the small exhibitor what we should like to find in the near future achieved for those who have no desire for a prize bloom display. Mr. Grahame's determination to upset the whole system of Rose exhibiting as then prevailed has resulted in a large accession of those amateurs who, through force of circumstances, could not fight those blessed with greater opportunities. May this principle be thoroughly adhered to in the future, and then the society will prosper.

It will interest rosarians to know that the late co-secretary, the Rev. H. D'ombrain, though of advanced age, is in good health, and, in writing this, the great work of this rosarian in the past for the welfare of this society, which he founded, is recalled to mind. Though, in the natural course, diligent workers amongst the flowers leave the ranks, their good works are not forgotten.

We congratulate the National Rose Society upon the annual report presented by Mr. Mawley, and rejoice that its affairs are managed with zeal and discretion.

## NOTES OF THE WEEK.

### FORTHCOMING EVENT.

December 29.—Meeting of the National Sweet Pea Society, Hotel Windsor, 4 p.m.

**The Flageolet Bean.**—Mr. P. Isherwood, The Gardens, Crichel, Wimborne, is anxious for information about the Flageolet Bean. We shall be glad if any who have cultivated this Bean will be so good as to send a note concerning it; many of our readers, we feel sure, would be interested also.

**Intermediate house Rhododendrons at Kew.**—The group of Rhododendrons comprising the several Malayan species and the numerous varieties raised by the intercrossing of these species by Messrs. Veitch is a very



beautiful and valuable one. Not only are many colours found in this group which are not found in other evergreen Rhododendrons, but their flowering time is much longer, for while most flowers are borne during autumn, winter, and spring, with a collection of twelve or twenty varieties, it is seldom that flowers cannot be found at any time of the year. The mere fact that these plants make such a bright display at the duldest time of the year commends them to our notice, and many thanks are due to Messrs. Veitch for having been instrumental in first introducing the species and afterwards working on them to produce so many lovely hybrids. At the present time one of the most pleasing features in the Mexican house at Kew is a large group composed of these plants. At Kew, previous to the erection of the Mexican house, these Rhododendrons were grown in pots, but on the completion of the house they were turned out of pots and planted in a border. The border is well drained and made up with peat and sand, about two parts of the former to one of the latter. To ensure thoroughly good drainage the bed was terraced by using large tree roots, so having the compost at different heights. When planting care was taken to ram well the soil about the roots and also that they did not become dry. The result is that the plants now grow more vigorously and flower more freely than they used to do in pots, and at the same time they grow into more shapely specimens. A large number of varieties are to be seen, of which a few of the most showy at present are Brilliant (carrying three dozen heads of flowers), Scarlet Crown, Virgil, Triumphans, Duchess of Edinburgh, Mrs. Heal, Ruby, Aphrodite, Princess Beatrice, Souv. de J. H. Mangles, President, Maiden's Blush, and Princess Alexandra. Cultivators who have not been satisfied with these Rhododendrons in pots would do well to try them planted out in a house with a minimum winter temperature of from 48° to 50°, taking care to give them plenty of drainage, good supplies of rain water at the roots, copious syringings overhead while growing, firm planting, and good sweet soil. The outlay in the first place is a little more than when pots are used, but this is made up for by better plants and more flowers.

**Veratrum californicum.**—In Mr. Mules' article on page 411 in *THE GARDEN* of last week for inches please read feet. The spike of the *Veratrum* figured is therefore 8 feet high, and for tea-green (page 410) in description of *Lilium nepalense* read sea-green.

**Berberis japonica and B. nepalensis.**—I was pleased to see the illustrations in *THE GARDEN* of the 6th inst. of these two Barberries and accompanying note from Mr. Burbidge, as it is strictly in accord with my own knowledge of them. Mr. Burbidge states that the two are for some reason or other frequently confused together in both nurseries and private gardens. This is indeed the case, and, what is more, in the "Kew Hand List" they are considered synonymous, for under the head of *Berberis nepalensis* the following names occur: *Berberis Bealei*, *Berberis Bealei planifolia*, *Berberis japonica*, *Berberis leschenaultiana*, *Ilex japonica*, *Mahonia intermedia*, *Mahonia japonica*, *Mahonia napaulensis*, and *Mahonia Sieboldi*. My experience is that *Berberis japonica* is the hardier of the two, but as stated *B. nepalensis* is the more effective. Where this last is not hardy it is well worth attention as a shrub for the cool conservatory. Years ago when the Royal Horticultural Society was located at South Kensington there was a fine specimen in one of the glazed corridors there, and it remained indifferent to London smoke and dust till it was, in common with many other interesting relics, finally swept away.—H. P.

**Brussels Sprout Sutton's Dwarf Gem.**—This vegetable is in season now, and my note is sent to show the excellence of the compact growers compared to the large and coarse ones. For private gardens large coarse and often loose Sprouts are out of place, and though much depends upon the culture the variety is of much importance. Though with field culture for market a large Sprout is not disliked for the home, I

would advise a bullet-like Sprout of medium size. This season Brussels Sprouts have been somewhat luxuriant in rich old garden soils owing to the abundant moisture during growth. This specially refers to those plants raised under glass early in the year. For ordinary use I would advise sowing Dwarf Gem as early in the year as possible in the open ground or in the northern counties in a cold frame. Plant out when quite small in drills so that the seedlings may be readily watered. Plant 3 feet apart between the rows and there need be no loss of space, as it is quite easy to grow a quick crop between, such as salads or Spinach. Grown thus the Dwarf Gem produces a beautiful hard Sprout with little waste, and, what is so useful, the Sprouts are of excellent flavour and remarkably hardy. Their solid growths from the base to the crown are remarkable for a dwarf plant.—G. WYTHES.

**London Dahlia Union.**—The following letter has been addressed to the National Dahlia Society by Mr. P. W. Tulloch, Sterndale, New Church Road, Hove, Sussex:—"At the annual meeting of the London Dahlia Union, held on November 4 last, at the Royal Aquarium, the chairman (Mr. John Green) announced his intention of giving a ten guinea challenge cup, to be competed for in the premier amateur class for Cactus Dahlias at the annual exhibition of the London Dahlia Union, the cup to become the property of the winner if won for three consecutive years. This liberal offer of Mr. Green's places the London Dahlia Union in a position to offer a considerably greater attraction to amateur exhibitors than the National Dahlia Society. Although the supporters of the Dahlia are doubtless united in wishing success equally to both societies, I feel sure that the members of the National Dahlia Society would regret to see this society placed in a position of secondary importance, and I therefore venture to suggest to my fellow members that an endeavour should be made to raise the sum of twenty guineas by subscription, for the purpose of offering two ten guinea challenge cups, one to be offered in the premier Cactus Dahlia class for nurserymen, and the other in the premier Cactus Dahlia class for amateurs, the cups to become the property of the winners if won for three consecutive years. The National Dahlia Society numbers 160 members, and if each member would be willing to subscribe 2s. 6d., a sum of £20 would thus be raised, which I shall be happy to increase to twenty guineas, in addition to paying the expenses of the printing and sending out of this appeal and acknowledging all subscriptions sent to me. Although a member of the committee of the National Dahlia Society, I may say that I am making this appeal simply as a private member of the society to my fellow members. All subscriptions sent to me will be duly acknowledged and handed over to our hon. treasurer, C. E. Wilkins, Esq., together with a list of the subscribers and the amount of each subscription. Might I venture at the same time to make another appeal, which is that each member of the society should make an effort to introduce at least one new member for 1903? If this could be accomplished and each new member subscribed no more than 5s., the result would be an important addition to the income of the society, thus enabling better prizes to be offered at the annual exhibition, which could hardly fail to increase the competition and improve the all-round quality of the exhibits."

**Chrysanthemums of decorative value.**—It may be of use to some of your readers who do not care to grow the enormous blooms seen at shows, and who do not succeed in doing so, to know the names of a few that are easy to grow, and, without the process bewildering to the amateur, of "taking" the various buds. Owing to a mistaken order, all my Chrysanthemums this year were flowered from terminal buds, that is, they were grown on quite naturally—merely disbudded and well fed. Those that succeeded and have been most decorative for bringing into the house or for cut flowers are Vivand Morel, Lady Hanham, Sunflower, and Chatsworth. They have had a dozen really fine blooms on each plant, and not too tall. John Shrimpton is very

effective, a mass of crimson blooms though not large. Mme. Carnot and Mrs. Mease are charming grown in this way, though quite unlike their usual form, being very spidery and delicate. Edith Pegram, single rich pink, was very fine. Framfield Beauty, a single bronze flower, good. W. H. Lincoln and Niveus are excellent. They were grown in the open, cut round with a spade, lifted in a week's time, and kept close with mats round them and then brought in and not disbudded much. A Pink Nivens that I see as I write has half a dozen blooms each 7 inches across. It is quite an acquisition, being of the same form and substance as the white (so useful for cutting), but is flushed with pink. The failures were Mrs. Coombes, Edith Molyneux, Le Grand Dragon, J. Upton, and others, all of which had open centres and of poor substance. Mme. E. Rogers also came small. Among the outdoor successes this year were Rye-croft Scarlet, which comes first in merit; Robbie Burns, yellow, flushed pink; October Queen, much the same colour as Lady Hanham; Crimson Marie Massé, bronze and yellow; and a beautiful single yellow, which is only just over (December 12), the name of which I do not know. Marie Masse was a disappointment this year, growing very tall and straggly, and of an unpleasing lilac shade. Rye-croft Scarlet is low, compact, and bushy, the colour resembling brick-red rather than scarlet.—A. M. M., Berks.

**Fruit growing and general gardening in Ireland.**—A number of County Committees of Agriculture and Technical Instruction require the services of itinerant instructors in fruit growing and general gardening, and with a view to securing suitable instructors for these positions the Department of Agriculture invite applications from young Irishmen who have had experience in fruit growing and gardening, and who are prepared to undergo an examination, which will be held at the Albert Institute, Glasnevin, at 10 o'clock a.m. on Friday, January 9, 1903. The department are further prepared to employ, with the ultimate object of training them to become instructors in fruit growing and general gardening, a limited number of candidates who, while not reaching the required standard, have shown in the examination a certain degree of proficiency and promise. For the services of suitable itinerant instructors in fruit growing and general gardening who may be appointed, the remuneration offered varies from £2 to £3 per week, according to qualifications, together with expenses of locomotion. Full particulars and forms of application to attend the examination at the Albert Institute, Glasnevin, which must be forwarded to the Department not later than January 5, 1903, may be had from the Secretary of the Department of Agriculture and Technical Instruction for Ireland, Upper Merrion Street, Dublin.—*Irish Times*.

**Sutton's First Crop Cauliflower.**—It often happens that there is a deficiency of autumn-sown plants that will produce early spring Cauliflowers; there is no better time than the present (December) to sow seed to make up the deficiency. For a few seasons we have grown First Crop with such success that a note may not be out of place at this season. I have also grown this variety in pots and boxes, and on account of its compact habit it is excellent for forcing. Seed sown in a cold frame and grown on will produce heads as early as the autumn-sown plants. Our method of culture is varied. Some plants are planted out and grown in cold frames from start to finish; others on a sheltered border, turned out of pots and for a time protected with hand glasses; these follow the frame plants. I am sure few vegetables are more appreciated than early Cauliflowers, and by sowing now this vegetable precedes the Pea crop, and being of such splendid quality is much liked. Grown in frames they require a rich root run and take up little room, but need care at the start. The seed should not be sown too close, and the plants grown near the glass. It is well to make two or three sowings from now to April, as these will provide a succession of compact heads; the variety under notice has few outer leaves.—G. W.



**Barleria cœrulea.**—A great number of Acanthaceae plants are remarkable for their showy blossoms, many of which are produced during the autumn months. Among them are the members of such popular genera as *Aphelandra* and *Eranthemum*, to the last of which this *Barleria* bears considerable resemblance, forming as it does a rather erect-growing plant, with the principal shoots terminated by a cone-like head of bracts, from whence the flowers protrude. These flowers are of a beautiful shade of sky-blue (a decidedly uncommon tint), and though in common with their allies they do not last long, yet a succession is kept up from one head for a considerable time. In the "Kew Hand List" this species, which is a native of India, is referred to as *B. strigosa*. It is somewhat strange that these beautiful Acanthads, of which there are so many, are, except in a botanic garden, rarely met with, for they are of very easy propagation and culture. The reason probably is that they are not available for cutting, a standard by which nearly all plants are judged nowadays. A second species, *Barleria flava*, also a native of India, has bright yellow blossoms; hence, in this respect, it is widely removed from the preceding.

—H. P.

**Amelopsis Veitchii.**—Seeing what remarkably good service this delightful Virginian climber has rendered to gardening, as well as to the picturesqueness of even modern suburban residences, I can by no means join in the disposition shown in some quarters to depreciate it. Even when it is urged that it does to some extent hide the architectural features of houses, whether ancient or modern, it is not difficult to reply that a good deal of architecture beloved of the architect is much better if hidden, whilst so close-growing is the plant that in all good architecture the close, dense leafage which follows so keenly the outlines of the building on which grown seems rather to improve the lines than to spoil them. But, apart from such considerations, how much do town dwellers compelled to live and move amidst streets of raw brickwork or stucco owe to this climber in relieving garishness, and in giving to houses otherwise reeking with summer heat a pleasant coolness? The introducer of this *Amelopsis* will never need a worthier or more cherished memorial.

—A. DEAN.

## KEW NOTES.

### INTERESTING PLANTS IN FLOWER.

#### Temperate House.

*Acacia urophylla*, *Chrysanthemum indicum*, *Cytisus filipes*, *Dahlia imperialis*, Malayan *Rhododendrons*, and *Oreopanax sanderiana*.

#### Palm House.

*Acokanthera spectabilis*, *Brownea Crawfordii*, *B. grandiceps*, *Carludovica rotundifolia*, and *Sterculia mexicana*.

#### Orchid Houses.

*Augræcum eburneum*, *A. pertusum*, *Bulbophyllum rufinum*, *Calanthe Veitchii*, *C. vestita* var. *luteo-oculata*, *C. vestita* var. *rubro-oculata*, *Cattleya labiata* var. *dowiana*, *C. luteola*, *Cirrhopetalum makoyanum*, *Cymbidium giganteum*, *C. traceyanum*, *Cypripedium crossianum*, *C. fitchianum*, *C. insigne* and yellow variety, *C. leeanum*, *C. Morganæ*, *C. venustum*, *C. virens*, *Epidendrum cooperianum*, *E. fragrans*, *Lælia anceps*, *L. autumnalis*, *L. a. var. atrorubens*, *L. gouldiana*, *L. rubescens*, *Macradenia lutescens*, *Maxillaria nigrescens*, *M. setigera*, *M. variabilis* var. *media*, *Odontoglossum crispum*, *O. gloriosum*, *Oncidium cheiroporum*, *O. raniferum*, *Polystachya tessellata*, *Restrepia maculata*, *Selenipedium longifolium*, *S. porphyreum*, *Sophranitis grandiflora*, *Zygocollax amesiana*, and *Zygopetalum cochleare*.

#### T Range.

*Amasonia calycina*, *Barleria flava*, *Clerodendron umbellatum*, *Clivia Gardeni*, *Debregeasia velutina*, *Eranthemum Andersoni*, *Euphorbia fulgens*, *Ipomœa Horsfalliæ* var. *Briggsi*, *I. ternata*, *Jacobinia chrysostephana*, *Justicia calycotricha*,

*Lindenbergia grandiflora*, *Oxalis rusciformis*, *Peumus Boldus*, *Picræna excelsa*, and *Thunbergia grandiflora*.

#### Succulent House.

*Aloe arborescens* var. *frutescens*, *A. pluridens*, *Crassala rubicunda*, *Epiphyllum truncatum*, *Rhipsalis crispata* var. *purpurea*, *R. rhombea*, *R. setulosa*, and *Senecio macroglossus*.

#### Greenhouse.

*Carnation Triumphant*, *Centropogon lucyanus*, *Cinerarias* (garden varieties), *Coleus thyrsoides*, *Epacris* (in variety), *Erica melanthera*, *Hibbertia dentata*, *Luculia gratissima*, *Peristrophe speciosa*, *Primula Forbesii*, *P. obconica*, *P. sineosis* varieties, *Reinwardtia trigyna*, *Senecio grandifolius*, and *Strobilanthes isophyllus*.

## NOTES ON LILIES.

### BORDER LILIES.

**C**OMPLAINTS are often made of failures in Lily culture, caused, in many instances, by injudicious selection, for in the books devoted to this beautiful class of plants there is a great tendency to call attention to the merits of all of them, whereas some are extremely difficult to grow successfully, while others may in most soils be associated with ordinary border plants. Given a well-drained and fairly open loamy soil that is not parched up during the summer, the following Lilies will, in most parts of the country, do well:—

*Lilium bulbiferum* grows about 2 feet high, the orange-red flowers being borne in an erect open head early in June.

*L. candidum* (the Madonna Lily).—Part of the recent want of success attending the culture of this Lily is undoubtedly due to the necessity of early planting being so often ignored. While the bulbs should at the latest be planted before August is past, I have seen them three months after that time exposed for sale in a dry state. It is not surprising then that these, when ultimately planted, fall a prey to all kinds of disease.

*L. carnolicum*.—The small Turk's-cap-like light red flowers of this Lily are less showy than some of the others, but blooming as it does among the earliest it is on that account valuable.

*L. chalcedonicum* flowers during the first half of August, and the prettily recurved bright sealing-wax red blossoms are much admired, while they are also less heavily scented than some of the others.

*L. croceum*, the old Orange Lily as this is called, is, about the end of June or early in July, much admired for reason of its erect bright reddish orange-coloured flowers.

*L. davuricum*.—Under this name or the collective title of *L. umbellatum* there are many varieties, all of which flower in June. The flowers, which vary in colour from dark orange to deep red, are borne in erect crowded heads.

*L. elegans*.—Of this there are many varieties, differing in height, colour, and other particulars. Most of them are dwarf, and need to be grouped in the front part of the border.

*L. longiflorum*.—In the southern counties of England this does well as a border Lily, the silvery trumpets being under such conditions much admired.

*L. pomponium*.—This flowers at about the same time as *L. carnolicum*, but the plant is of more slender growth, with deeper and brighter red flowers.

*L. pyrenaicum*.—This, if left alone, forms dense masses about 18 inches high, each sturdy stem being very thickly clothed with leaves, and crowned by a pyramidal-shaped head of small Turk's-cap-like blossoms, which have a heavy unpleasant scent.

*L. szovitzianum* grows from 3 feet to 5 feet high, and bears, early in June, regularly reflexed flowers about 4 inches across, and of a pale yellow, dotted with purple.

*L. testaceum*.—This, the Nankeen Lily, has been too frequently referred to in THE GARDEN to need anything said in its favour, the tall slender stems crowned by their heads of pretty reflexed nankeen-coloured flowers being so distinct from any other as at once to attract attention.

*L. tigrinum*.—In the early part of August the well-known flowers of this Lily assert themselves, and prove it to be valuable for the open border.

Of the Lilies above enumerated, *L. bulbiferum*, *L. croceum*, *L. davuricum*, and *L. elegans* all belong to the upright-flowered class, and can be depended to bloom well the first season after planting, a remark that also applies to *L. longiflorum* and *L. testaceum*, providing this last is planted before Christmas, as it starts early into growth. The Turk's-cap class, on the other hand, are seldom satisfactory the first season after planting, and need two or three years to become thoroughly established. In the southern part of England the Japanese *L. speciosum* is also a good border Lily, particularly in an early season.

H. P.

## CHRISTMAS FRUITS.

IN the consideration of Christmas fruits, quite a different feeling pervades the mind from that which surrounds the fruits that we hope to be anticipating and enjoying some six months hence. At this time of year our gardens and orchards are devoid not only of fruits but of much else that makes a garden attractive—a place almost to dwell in. While we revel in our home produce of fruits, flowers, and vegetables during as much of the year as we possibly can, it is at the period of the old year's departure and the advent of the new, when our own climate as well as our gardens are usually in the worse possible condition, that our thoughts turn to the sunny south, from whence comes much of the produce of the vegetable kingdom that helps to make life happy.

In the matter of fruits, the contents of the grocer's shop are at this season much more in evidence than that of the fruiterer, though in point of attraction the fruiterer and florist, as should be the case, has priority. But while the grocer is almost entirely dependent upon foreign produce, the fruiterer and florist is only partly so. Nevertheless, in the matter of consumption and commercial value, the dried fruits of the former are by far the most important and popular, being in demand by all classes, even the poorest, for Christmas would not be Christmas without the Plum pudding, and a Plum pudding would not be what it professes to be without Raisins and Currants. Besides the enormous demand for these fruits that Christmas brings with it, we must add others, such as Sultanas, Muscatels, French Plums, Prunes, Almonds, Oranges, Lemons, Figs, Dates, &c., a goodly selection, which, regarded from a botanical point of view, represent five natural orders of plants widely separated from each other in scientific classification, and also very widely distributed geographically. Looking into these products a little more carefully, we find that Raisins, Valencias, Sultanas, Muscatels, and Currants are all the produce of one species, namely,

#### THE GRAPE VINE (VITIS VINIFERA).

It is quite unnecessary to go into the history of the Vine, already so well known, but it may be of some interest to briefly review its cultivation and extension for the sake of its dried fruits, which has made such progress in comparatively recent years, producing large crops in Australia, the Cape, California, and other countries. Though Spain commands the market in the best quality of Valencias and Muscatels, occasional consignments of the latter are reported as arriving from California, though both in Raisins and Currants, California and the Colonies cannot compete with Spain, the Greek Islands, and Smyrna; they are able to grow and prepare fruits for their own consumption. The Valencia produce in Denia this year is said to have suffered from the extremely hot and dry season, so that the fruits, instead of filling out into plumpness before being dried, have



withered or dried up on the Vines. This accounts for one cause of the increase in price, averaging this year about 1d. per lb. over that of last year.

The method of drying Raisins, Muscatels, and Currants differs slightly in detail, the aim being to dry them as quickly as possible to prevent decay or mildew. The bunches after gathering are spread out and exposed to the sun in such a way that the heat is equally distributed to every fruit. The time thus occupied varies according to the weather and other circumstances, but on an average it may be taken at about fifteen days. After the bunches are dried on one side, they are turned over to complete the operation, and when properly dried are packed in boxes weighing respectively 14lb. and 28lb.

Of late years much improvement has been effected both in the drying and packing, especially in the removal of the stalks, which gives the bulk a cleaner and better appearance. Time was—and that until quite recently—when one of the cook's troubles, especially at the Christmas season, was "stoning" the Raisins, a trouble that is now got rid of by the application of machinery at the extra cost of about 1d. per lb., which is compensated for by the weight of the stones. The fruit is very little altered in appearance by the process. Muscatels, which are almost exclusively used as a dessert fruit, are very carefully dried so as to preserve the bloom, and are imported on the stalks, that is, in bunch form. Those from Malaga appear to be abundant this year, as well as of good quality. They are brought here mostly in boxes of 22lb. each, closely and neatly packed in layers.

Another form of Raisin is that known as the Sultana, which is a "stoneless" or seedless variety, from Smyrna. In the absence of seeds they approach very nearly to the Currant, but their much lighter colour and size distinguish them from that fruit, though in point of size alone some varieties of Currants have of late years been introduced about which some difficulty arose among the Customs authorities whether they were rightly classified as Currants, paying 2s. per cwt. duty, or Raisins, upon which is charged 7s. Like Currants, Sultanas are imported with the small and slender stalks still attached. They are packed in boxes each weighing about 30lb. To the extended cultivation in Smyrna of new Vines of the special variety yielding the Sultana Raisin is said to be due the good quality of much of the fruit now in the market. A good quality of Sultana is judged by the light, almost golden colour, fleshiness, and uniformity of size. Much of the lower class fruit of this description is mixed with small dark coloured fruits, which are absent in the best qualities.

Currants in the market this season are said to be of extremely good quality and abundant in quantity. The estimated Currant produce in Greece this year is put down at 150,000 tons, against last year's 110,000 tons, consequently they are selling at a cheap rate. The term Currant as applied to these small dried Grapes is often confusing to a young child, who is more familiar with the Currant bushes of his own garden. In these days of advanced education, however, the fact soon becomes known that the Currant of the grocer takes its name from its original place of growth, namely, Corinth, of which it is a corruption.

Leaving the Grape Vine and turning to some fruit products of the Rosaceæ, an order specially noted in this direction, we find the dried fruits of certain varieties of the Plum (*Prunus communis*) very much in evidence, especially those commercially known as French Plums and Prunes, of which enormous quantities are now produced and consumed both in Europe and in America. Though the Prune is an extremely wholesome and very nutritious fruit, it is not used in this country to the extent it might be, due, no doubt, to the high price it fetches in comparison with other dried fruits, for it cannot be denied that the flavour of the Prune is as much relished by English people as by those of any other part of Europe or America. For some years past the cultivation of Prunes in California has been considerably extended, and it was thought that this extension might lead to a reduction in the prices of the European produce,

as the American demand would be met by California, thus leaving a larger supply of the Bosnian and French fruit for European consumption. With all this, however, there seems to be but little change in the position of Prunes, taking the world over, except, of course, the fluctuations caused by good and bad seasons. In Santa Clara County, California, where some of the largest Prune orchards are to be found, it has been estimated that an orchard of 300 acres should contain about 320,000 trees, which at maturity should give an annual produce of over 40,000,000lb. of dried fruit.

Under proper cultivation the trees begin to bear at the age of three years; in the fourth year they yield a fairly profitable crop, in the fifth year they should give from 50lb. to 60lb. per tree, which in the sixth year should be doubled, and so on. An average yield of trees in full bearing in Santa Clara County is said to be 300lb. per tree. The principal markets for Californian Prunes are Chicago and New York, while smaller quantities go to Philadelphia and Pittsburg. The produce of the Prune-growing countries has been recently estimated as follows: California, between 80,000 tons and 90,000 tons; Bosnia, 60,000 tons to 70,000 tons; and France, 30,000 tons to 40,000 tons. Of French Plums little need be said, as we all know of their more fleshy character and sweeter taste than the Prune, and that they are used for dessert rather than as a culinary fruit. Though a large quantity of French Plums arrive here packed in boxes, some of the selected or choicest fruits are carefully packed in bottles, as are also the choice Plums from Portugal, known as Elvas, and also Carlsbad Plums, the supply of which is always small.

JOHN R. JACKSON.

(To be continued.)

## USES OF BRITISH PLANTS.

### V.—TILIACEÆ.

LIME (*Tilia vulgaris*).—The common Lime is not indigenous, though we have two native species. No particular use is made of the Lime tree in England, but the inner bark, called "bast," is used for garden matting, and known as "Russian," since it is imported from Archangel. The wood of the tree was formerly used for engraving, but is now superseded by that of the Box tree. Holbein's cuts are said to have been made of it. The flowers supply an abundance of Honey, which is secreted in rather an unusual place, namely, by the sepals, which are boat-shaped, and so hold a considerable quantity in each. It hardly ever ripens its fruit in this country. It may be remembered that the Lime tree supplied the name Linné, usually known as Linnaeus.

### GERANIACEÆ (TRIBE, ONALIDEÆ).

Wood-sorrel (*Oxalis Acetosella*).—The wild Geraniums do not furnish any useful plants, except two or three species cultivated in the garden, as the purple-flowered *G. pratense*, *G. sanguineum*, with crimson or pink flowers, and the naturalised *G. phæum*, with dusky purple, as well as *G. striatum*, the "pencilled" Geranium.

In the Tribe Exalideæ, both the Wood-sorrel and Balsams are cultivated, *Impatiens noli-me-tangere* being found in mountainous situations, as in North Wales and Westmoreland, while the American plant, *I. fulva*, has established itself along several riversides.

The Wood-sorrel, the trifoliate leaves of which illustrate "sleep" very well, is remarkable for the great acidity of its foliage, hence it was formerly called "Wood-sour"; this is due to binoxolate of potash. From the expressed and evaporated juice crystals are obtained and sold as "essential salt of lemons," useful for removing ink stains; but it should be remembered that it is very poisonous, so that those who use the plant for salads should do so with great caution.

### AQUIFOLIACEÆ.

Holly (*Ilex Aquifolium*).—Besides being much grown as an ornamental shrub or for hedges, in which the numerous variegated sorts play a great part, bird-lime is often prepared from the bark of the Holly, the inner green portion of which is

steeped in water and allowed to ferment, when, after some days, it becomes sticky. This, with oil or fat, constitutes bird-lime. The bark has also been used instead of cinchona for fevers. Lastly, the leaves are employed in the Black Forest for Tea. This is not surprising, as Paraguay Tea is made from the dried leaves and shoots of another species of Holly growing in South America, and it often happens that similar properties are found in more than one species of the same genus. The white wood of Holly is much used for inlaying, as in the so-called "Tunbridge ware."

### CELASTRINEÆ.

Spindle Tree (*Euonymus europæus*).—The name is derived from the use for which the shoots are employed, and being a very hard wood it is well adapted for making butchers' skewers. It also makes excellent charcoal. The fruit becomes rose-coloured when ripe, and on bursting liberates the seeds, which are covered with an orange excrecence. This yields a good yellow dye, and a green one with the addition of alum. The berries, it should be remembered, are harmful, having proved fatal to sheep.

### RHAMNACEÆ.

Buckthorn (*Rhamnus Frangula* and *R. Cathartica*).—The berries have been long used as a cathartic medicine, but are rather dangerous. The chief value of the berries, as also of a foreign species (*R. infectorius*) is for water-colours, in yielding "sap-green" and a yellow dye, as also does the bark. The wood is particularly serviceable for making gunpowder charcoal, being very light and easily inflammable.

### SAPINDACEÆ (TRIBE, ACERINEÆ).

Maple (*Acer campestre*).—The chief value of this tree is in the timber, as the wood, being beautifully marked when polished, is employed for furniture. As it can be well turned, bowls, cups, &c., are made of it. The sap of this, as well as of other species (especially the Sugar Maple of North America) contains Sugar, the leaves and young shoots forming excellent fodder. The charcoal obtained from this wood is one of the best.

Sycamore or Great Maple (*A. Pseudoplatanus*) is an introduced tree, being a native of Middle Europe and West Asia. Like the Maple, the wood is good for turning, and when the tree has been pollarded the knotty wood is sometimes beautifully marked, and is useful as a veneer. The juice contains a large amount of Sugar. It is said that 36 quarts of sap have flowed from one tree within a week.

GEORGE HENSLOW.

## CHRYSANTHEMUMS.

### THE COLLECTION AT FETCHAM PARK.

ON a beautiful day in the late autumn it was our privilege to visit the gardens of Fetcham Park, Leatherhead, there to view the collection of superb Chrysanthemums which have gained so much notoriety in recent years. Fetcham Park is beautifully situated and covers a vast area. The landscape is also beautifully undulating, and the trees, of a varied character, were looking their best in the glorious autumn garb which they assume at this period. Lovers of all that is best and inspiring in Nature could not, on such an occasion, fail to be impressed with the wealth of autumn beauty to be met with everywhere, and all this within twenty miles of the busy metropolis. The brilliant sunshine and the magnificence of the well-timbered park each contributed to make the occasion a memorable one. Special mention must be made of a splendid Cedar on the lawn near to the house. Its girth 6 feet above the ground was no less than 31 feet 4 inches, and its large and numerous handsome branches extended quite 30 yards from the main trunk of this superb specimen.

The Chrysanthemums, however, were the object of our visit, and as Mr. J. B. Hankey gives so many



facilities for their proper cultivation, cultivators throughout the country owe to him a debt of gratitude for the superb blooms emanating from his garden, which they meet with at various shows in London and the provinces. Mr. W. Higgs, the able gardener and successful exhibitor, has shown the Chrysanthemum world how exhibition blooms should be grown. We should imagine his unbeaten record of five years for incurved blooms is a unique one. This great success has not been achieved without much hard work and persistent attention to the many details of culture, which successful growers know full well is absolutely necessary. It is as a grower of incurved Chrysanthemums that Mr. Higgs has excelled. Of his highly finished globular flowers of incurved form this grower has entered the best and most severe competitions during the last five years, and comes out of the ordeal with flying colours. Of such a result he may be justly proud, and all florists who desire to see high quality represented at the leading shows will endorse the hope that this grower may be spared many years in which to represent the Chinese type of the Chrysanthemum in ideal form. Some 400 plants of the incurved type of the flower are grown here, and, as readers of THE GARDEN will imagine, new sorts play an important part in the collection. The Queen family of incurved Chrysanthemums rather more than ten years ago were the great strength of an incurved grower's collection, but since newer and larger types of the flower have received encouragement from the leading authorities, the giants of earlier days just referred to are relegated to a somewhat inferior position. Mr. Higgs, however, still regards the Queens with favour, and appeared to be well pleased with neatly developing blooms of Lord Alcester, Queen of England, Golden Empress, John Lambert, Empress of India, and John Doughty. Years ago scarcely a board of blooms was set up without the foregoing being well represented, and, as subsequent events have proved, these same varieties have been staged in excellent form by this grower, although small when compared with the newer sorts. Another type of incurved bloom, which a decade since was considered ideal, is that known as the Princess type. This was represented at the shows ten years ago by the parent variety Princess of Wales and numerous sports, but in few instances indeed are they now met with.

We saw some pretty blooms of Violet Tomlin and Miss M. A. Haggas, a pair sent out the same year, and immensely popular at the time. Robert Petfield (silvery mauve), Mrs. R. C. Kingston (pale pink, shaded white), and George Haigh (dull rosy carmine) are a trio which promised well for these older sorts, and were striking evidence of the value still set upon them. Just a little later in the date of their introduction were Globe d'Or, bronzy yellow; Lady Isabel, lavender blush, and very large; Duchess of Fife, white, very large and of deep build; Chas. H. Curtis, the large and popular yellow incurved of globular form; Topaze Orientale, a large and deep bloom of a pale yellow colour; Mme. de Verneuil, light pink, shaded white; and Major Bonaffon, the lovely yellow, with splendidly finished petals, which the National Chrysanthemum Society at one time thought was too much like Chas. H. Curtis and bracketed them together as synonymous, were all in the pink of condition. To intending growers of the incurved varieties the names given above should be conclusive proof of their high standard, as it goes without saying that they would not be in the Fetcham Park collection unless they were consistent and of high merit. Newer varieties were in evidence at every turn, and in this way blooms of Miss Doris Cox, a mauve-pink, similar in build to Robt. Petfield but larger, were highly praised. The same remark applies with equal

force to superb blooms of Miss Nellie Southam, a deep rosy purple flower of large size and good form. The blooms of Mrs. H. J. Jones were opening rather late, but their substance promised to be phenomenal. This is a grand white flower of deep build. George Lock, a mahogany-coloured bloom with a paler reverse, was represented by magnificent flowers, and may be regarded as a grand acquisition. Cecil Cutts, of a deep rich butter-yellow colour, and recently certificated by the National Chrysanthemum Society floral committee, is a large and handsome bloom, and has already proved its value on the exhibition table. Mme. Ferlat, white, large, and its golden-yellow sport, Golden Mme. Ferlat, are two excellent sorts, though rather late. Several plants were in a warmer house to hurry them on. Mr. Higgs believes in stopping these two sorts in May and taking first crown buds; it is the only means whereby they may be had in time for the shows. Mrs. F. Judson, pure white, described by some distributors as a white C. H. Curtis, is a capital sort but rather late. A natural break and first crown bud selection prove too late, and for this reason the plants should be stopped rather early. Another very large white incurved is Mrs. C. Crooks, but the petals and the form of the flower have much of the Japanese trait in their character. Comtesse d'Estoule is another new variety of promise, and to be seen at its best should be stopped in May and first crown buds retained. The foregoing are just a few of the more noteworthy sorts remarked on the occasion of our visit. Some of the plants were very tall indeed, and when arranged in the capacious and lofty houses were near from the glass roof. Various systems of stopping are followed; in some cases a March stopping, with a subsequent second crown bud selection, answers splendidly, but gives very tall plants as a result; in other instances a May stopping and a first crown bud selection appear to succeed equally well.

Mr. Higgs also grows about 120 Japanese plants, and these were in splendid form. A few of the most striking flowers were: W. R. Church, Mrs. Barkley, Mrs. Geo. Mileham, Miss Lily Mountford, Miss Nellie Pockett, Mrs. Greenfield,

Mme. Herrewewe, Mrs. Coombes, Mrs. H. Weeks, and R. Hooper-Pearson, besides several other popular kinds. With these plants Mr. Higgs has achieved wonders this season. We reluctantly left the gardens and their beautiful environment, inwardly congratulating the proprietor on the charms of all that was to be seen, and wishing continued success to the enthusiastic cultivator.

D. B. C.

## OPUNTIAS AT LA MORTOLA.

ONE of the more important features of Sir Thomas Hanbury's garden at La Mortola is the Opuntia. Our illustration shows *O. grandis* and *O. tunicata*, and strangely picturesque are the groups, as the illustration suggests, and the free way in which they are massed gives them a certain beauty.

## THE FERN GARDEN.

### A NEW VARIETY OF THE ROYAL FERN.

**O**SMUNDA REGALIS (the Royal Fern) is a distinctly beautiful species, even in its normal form, and when properly treated—i.e., given a boggy soil, or at any rate liberally supplied with moisture—forms a handsome decorative plant. The crested variety, *O. r. cristata*, bearing large flat tassels at all tips, is still handsome, and since its first discovery, near the middle of last century, has been propagated so largely that it is now found in every collection, amateur or botanical. It has also yielded a branched form and a bulbiferous one, though it comes singularly true from the spores. Other finds have been discovered, one with slightly undulate pinnules, and one of an erratic



OPUNTIA GRANDIS AND O. TUNICATA IN SIR THOMAS HANBURY'S GARDEN AT LA MORTOLA.



type, but until quite recently the crested form stood alone as an improvement.

Early in August, however, of this year Mr. Alex. Cowan and Mr. W. B. Boyd accompanied a party of botanists to Kerry, Ireland, and there in a district teeming with thousands of the normal *Osmunda*, they found two beautifully divided types, Mr. Cowan finding six plants in the first instance, which were finely cut and fertile, and Mr. Boyd discovering three others, which were still more finely dissected and barren, pointing indeed to a true plumose type of the species. I send herewith photographs of parts of Mr. Cowan's find, by which it will be seen that, compared with the normal, there is a vast difference, amounting in the upper parts of the fronds to a distinct additional division, the normal smooth-edged pinnules or secondary divisions being cut into stalked pinnulets or tethary ones, giving the frond a far more feathery and delicate appearance. This character pervades the entire frond, appearing in the larger pinnules as rounded lobed edges, merging into stalked pinnulets. Mr. Cowan's form we have named *O. r. decomposita*, reserving a distinctive name for Mr. Boyd's when its character is better established by new growth and further comparison next season. The variety is too thorough to admit of any doubt as to constancy, and we may therefore hail these discoveries as welcome additions to our decorative British Ferns.

#### DECIDUOUS FERNS.

FERNS may be roughly divided into two classes, viz., the evergreens and the deciduous, the former retaining their fronds through the winter until they are replaced by the spring growth, and sometimes even longer, while the latter lose their fronds entirely in the autumn, nothing but the crowns and roots remaining. The consequence frequently is that deciduous Ferns in the hands of those who are not aware of their nature are assumed to have died altogether, the fading and dying down of these fronds being imputed to lack of health instead of to purely natural causes, induced by a habit of resting through the cold season. The major part of the Ferns indigenous to cool and cold climates have acquired this habit, owing to the impossibility of their retaining their foliage in a useful condition through the storms and stress and snowfalls of the winter, and it is only those whose fronds are particularly tough, or which grow under such conditions that these risks are minimised, such as wall or rock Ferns, like the Spleenworts, that retain them all the year round. Amongst our British Ferns we have representatives of both classes, the Lady Ferns, Bladder Ferns, Oak and Beech Ferns, Mountain Buckler and Marsh Buckler Ferns, and Royal Ferns. All change colour in the autumn, and eventually die right down to the ground. The soft Male Fern, and Broad Buckler Fern, and its allies *spinulosa*, *uliginosa*, and *cristata*, form an intermediate group, the fronds merely giving way at the base and remaining green in sheltered situations, while the hard Male Fern, the *Polystichum* (*P. lonchitis*, *aculeatum*, and *angulare*), the common Polypody, the Hart's-tongue, and all the Spleenworts and Blechnums are thoroughly evergreen, as are also the Filmy Ferns, *Hymenophyllum* unilaterale, and *tunbridgensis* and *Trichomanes radicans*. All these, retaining their verdure as they do, run of course no risk of being mistaken for dead ones, and

consequently neglected in such a fashion that they become so in reality, hence it is only necessary to give a word of warning at this season as regards the former category with a view to their preservation.

In the first place, despite their dormant condition, they must not be allowed to get dry; the roots are still alive and the crowns still full of sap, and these conditions must be maintained. Short of actually standing in water, which is never beneficial, it is difficult to keep them too moist, though it is quite sufficient to see that moisture is retained. If we, at the risk of wet feet, examine the woodland habitats of Ferns in the dead season we find them covered cosily up with wet leaves and in soil which is thoroughly soaked.



SPIKE OF *CIMICIFUGA JAPONICA*, A BEAUTIFUL AUTUMN FLOWER.

This gives us the cue to their natural requirements, and since, in the course of several months, seemingly empty pots in conservatories are very apt to be pushed away out of sight, and hence out of mind, in the absence of any fronds which can be damaged, and the existence of a perfectly hardy constitution, it is advisable to plunge the pots in soil out of doors and mulch them with dead leaves, or to bed them in cocoanut fibre in spare frames. In this way they will be quite safe with an occasional watering, and can be easily re-instated in their proper places as soon as signs of movement are evident in the spring. Hardy Ferns grown in conservatories, which are kept warm in the winter, should, whether deciduous or not, be

removed to the open or quite cold frames when the resting season sets in. None of them like coddling, and most of them, if in a warm house, start growth far too early for their constitution's good, and suffer for it later. The writer's collection is invariably frozen in the winter, whether under glass or not, and in this way obtain a full spell of rest instead of half a one. Those who have warm conservatories, however, and wish to force their Ferny occupants for the sake of earlier enjoyments, may compromise by planting out the Ferns so forced later on in the season, say, end of May, and in this way give them a constitutional which will restore their energies, otherwise they become soft and vermin infested. The main point, however, we have at present in view is that the death and decay of Fern fronds at this time of the year is not necessarily a sign of ill-health, but in all probability is due to a deciduous habit, and hence is quite natural.

CHAS. T. DRURY, F.L.S., V.M.H.

#### NOTES ON HARDY PLANTS

##### *CIMICIFUGA JAPONICA*.

SOME interesting notes have lately appeared in *THE GARDEN* about this beautiful species, which flowers in Edinburgh about October. The illustration, showing a small plant, was taken in the third week of that month. With age the plants throw up stronger flower spikes. As in the case of nearly all the *Cimicifugas*, they are of a good white, lasting a considerable period, unless heavy rains and wind occur. This and *C. elata*, which flowers a month or more in advance here, are two of the finest *Cimicifugas*, and suitable for the representation of this genus in the choicest hardy plant borders.

D. S. FISH.

Royal Botanic Gardens, Edinburgh.

##### *DELPHINIUM GRANDIFLORUM*.

WE received some time ago a photograph which shows the remarkably free development of this beautiful Siberian plant in the neighbourhood of Chicago, where, in the garden of Mrs. Francis King, Elmhurst, Illinois, it attains a height of between 4 feet and 5 feet. It is a plant that is beautiful in all sizes, for even when stunted and under 1 foot high the dainty shape of both flower and leaf and the brilliant light blue bloom make it a good garden ornament. In England its height is usually from 2 feet to 3 feet. It must, indeed, be a lovely thing in the taller and fuller masses. In a sowing of ordinary seed there are usually some white-flowered plants, and some of a grey-purple colour; it is pretty in any colouring, but best in a limited range of the true *Delphinium* blues.

##### *ORNITHOGALUM UMBELLATUM*.

ONE of the commonest of spring bulbs in old gardens is the Star of Bethlehem, with its white satin-like stars with white and green backs, wide open to the sun. So long has it been in our gardens and so willingly does it grow anywhere that it has become naturalised in England, though it is a plant of continental origin. The flowers not only last long in



water, but if a flower-head is laid on a table without any water it will open its blooms day after day.

### SAXIFRAGA AIZOIDES AURANTIACA.

THERE is a wonderful wealth of beauty in the Saxifrages or Rockfoils, and we have few genera which add so much to the interest and beauty of the rock garden. They are exceedingly varied in character, and it is not difficult to choose from among them plants which are of the greatest value for any position in which it is desired to plant a Saxifrage. For the vertical or horizontal fissure, for the flat terrace of the rockery, for the border, or for the margin of the bog garden, one or more may be selected which will thrive and delight those who possess them. Some of our native species and their varieties yield to none in their attractions, and among these one would place the variety of our native *S. aizoides*, known as *aurantiaca*, an apt term, from the colour of its flowers.

The typical *S. aizoides* is one which is found in abundance in many of the northern parts of these islands, where it delights to grow in the moist places by the side of little brooks and rills which descend from the hills and mountains. It is, in such positions, a charming little plant, with its close-growing clumps of bright and cheery green foliage, only rising an inch or two above the level of the soil. Its attractions are increased by the flowering period being later than that of a number of the Rockfoils we grow in our gardens, the bright yellow flowers, spotted with red towards the centre, appearing well into summer or even in autumn. The type is always welcomed in the garden, but there is about the colouring of the variety *aurantiaca* a richness and distinctive character which adds still further to its value for us. It may be best described as "old gold," a tint not noticeable in many flowers. There is no more difficulty in cultivating the variety than the type, but it ought to be said that both the typical *aizoides* and the variety must never suffer long from drought. If a dryish position is unavoidable, it ought to be one where the plant is screened from sun and where it can be watered when necessary. With plenty of moisture at the roots it is all the better for sun. There are few prettier moisture-loving Saxifrages than this.

### PRIMULA MEGASEÆFOLIA.

THE introduction of the beautiful *Primula* was of great interest to many growers of hardy flowers. It is to be feared, however, that its real value to those who have little or no glass is almost minimised by its winter blooming habit; for in an average, let alone a severe, winter it is hopeless to expect that it will give full satisfaction in the open. Last winter, which, in its early months at east, was a mild one, permitted of this *Primula* opening some of its flowers, but it never attained the beauty of such a plant as was shown by Miss Willmott at the Drill Hall, and it is doubtful if we shall ever have an opportunity of seeing it in the open in a really perfect condition as regards its bloom. This is meant as applying to winter bloom, but we have been told that it may bloom in summer also. Although my plant in the open was quite healthy and vigorous this summer, and apparently none the worse for its winter without any covering, it made no attempt to bloom until late autumn, when it began to send up its scape of flowers. These were progressing slowly until the frost came in the first week of December and injured them. When this was written the frost was still severe, and it looks as if the plant would require to send up another scape of flowers if it means still to bloom this season. All this points out to



CHRISTMAS ROSES OUTDOORS.

*P. megaseæfolia* being a plant for the alpine house or cool greenhouse, where it can be grown in a pot while it is coming into and while in bloom. For such a purpose it is both interesting and beautiful, not the least of its attractions when grown under such conditions being the fine broad leaves, which, in their general form, justify the aptness of the specific name of *megaseæfolia*, applied from their resemblance to the foliage of some of the Saxifrages of the *Megasea* section. So far as regards its hardiness as a plant, I have no reason to complain, as it seems to stand our frosts here quite well. But so far as its usefulness as an open-air flowering plant is concerned, however, I regret that one cannot speak more favourably.

*Carsehorn, Dumfries, N.B.*

S. ARNOTT.

## THE FLOWER GARDEN.

### THE CHRISTMAS ROSE.

OF all our hardy winter flowers this is one of the most useful and interesting, and those who have given their plants a fair share of attention through the growing season, and exercised a little forethought in their protection, will now be rewarded with abundance of pure white flowers, which will be warmly appreciated. Christmas Roses flower from the end of the year to the middle of March, as the situation or the weather may determine; this, combined with their purity of colour and hardy nature, makes them doubly useful to the amateur as well as to the gardener. One never need be without these delicate flowers at this dull season of the year if only care is brought to bear upon them. They will grow in almost any ordinary garden soil and in almost any aspect, except full sun. This, from long experience, I have found they do not like. A heavy soil and a shady place suit them well, and it is of the utmost importance to leave them for many years undisturbed, and in the spring, after flowering is over, give a top-dressing of leaf-mould and rotten manure, as this will help materially to keep them in good health for many years.

If the plants are grown in large clumps or in square patches it is well to place one-light frames or hand-lights over them as soon as they begin to make new growth in order to help the flowering, and the same practice may be resorted to for the production of early blooms. These plants also lend themselves readily to pot culture, and should be potted up early in autumn, using pots in proportion to the size of the plants. They should never be overpotted, the soil should be good rich loam, with a mixture of road grit to keep it open. Plunge the plants in frames to their rims in coal ashes or cocoa fibre; this will keep the soil moist and prevent unnecessary watering. The plants may be brought into gentle heat and forwarded as required, but they should never be given very much heat.

After the flowering season is over plunge the plants again up to the rim on a shady border, and during the growing season give them copious supplies of weak liquid manure. I have often seen these plants when grown in pots with all their leaves cut away, and, in reply to the question why this was done, was told the object was to throw all the strength into the flowers. A greater mistake than this cannot be made, for at the time of flowering the plant requires all the help it can get, and as the leaves are the lungs of the plant it is no wonder that after this barbarous treatment we often hear of Hellebores doing badly.

T. B. FIELD.

*Ashwellthorpe Gardens, near Norwich.*

### ROUND ABOUT A GARDEN.

#### FROST'S DEVASTATING TOUCH.

EVEN the slight frosts of a mild autumn wreck the beauty of a garden. Viewed from a distance many hardy flowers may still make fine patches of colour; but looking close you scarcely find a single untarnished blossom, and only the lucky owner of large glass houses finds no difficulty in the problem of a free supply of cut flowers for the house. Then in December comes the staggering blow of a real



hard frost, and, save for Christmas Roses and some premature Irises, your outdoor garden practically ceases to have any utility as a flower-producing area. Then a melancholy interest attaches to your wanderings among the flower-beds after breakfast, as you note which of your treasures have been "caught" and which, through good luck or good management, have escaped.

#### THE CONSOLATION OF THE BIRDS.

But to those whose joy in a garden is based upon love of Nature, the hardest frost brings the largest compensations. All birds then lay aside their fear of man, and it is something to be accompanied wherever you go by one or other of the robins that have divided up your garden between themselves. So far as his beat extends each will attend your steps, flitting a few yards in front and watching with head cocked on one side as you whittle off a tiny scrap of Almond for him. If the religion of the robins includes any tradition of a Garden of Eden, Almonds that grew without shells must surely have been the forbidden fruit, for when once a robin has learned—though some take a much longer time to learn than others—that you dispense scraps of Almond every day, he becomes your unquestioning devotee.

#### TITS AND ALMONDS.

The tits are slaves to the "Almond habit," too; but for them your best plan is to string whole Almonds on a slack wire, slung between two trees or verandah posts, or uprights of any other form. Tits never seem to be really comfortable at dinner unless they are twiddling head downwards all the time. Scarcely have you hung up the day's supply than a tomtit comes flying from the shrubbery like a bullet, and, without swerve or check in his flight, is fixed upside down to one of the Almonds, grasping an end with each foot and hammering away at the middle with his chisel beak. Before, however, he has got into full swing, another tomtit, slightly larger and more brightly coloured, comes straight across the open to the wire and abruptly alights, not upon any of the disengaged Almonds, which are placed about half a foot apart so as to accommodate all comers, but upon the very Almond which the first tomtit was eating. The latter evades the collision by a miracle; but he must, you would think, be shot into the next parish by the effort. Instead of that you see him calmly commencing to feed again on

the next Almond but one. This does not please the newcomer at all. He lets go of the original Almond, and in the same instant is hanging on to the next Almond but one, while the original tomtit has somehow got into the Honeysuckle above the further end of the wire.

There is another movement, so quick that the eye can scarcely follow it, and both tits are in the Honeysuckle. No, they are not; only the newcomer is there, and the original tit is in the shrubbery across the lawn. Then the newcomer returns to the half-eaten Almond, and, if he is lucky, makes a square meal of it,

not some ill-mannered bachelor from the north. Indeed, if, as is well known, hosts of tits come to England as migrants in winter, how do we know that our own tits do not similarly travel southwards, getting separated from their wives on the journey, and fighting all comers for food throughout the winter?

#### FLOATING BIRD LIFE.

We know that our swallows and nightingales and cuckoos go, because no others come from further north and east to take their places; but how do we know that our blackbirds, thrushes, robins, and tits do not leave us for the winter also, their places being taken by migrants? If those who take interest in the wild life of their gardens would make notes of the individual peculiarities of any birds which are seen there in winter, and keep a sharp look out for the same birds in the following spring and summer, we should probably find that our bird population migrates and changes from season to season much more completely than naturalists imagine. Some robins, for instance, spend only the summer, and others only the winter in a certain district, while yet others only visit it twice a year, in spring and autumn. This explains why your garden robins, which have almost fed from your hand in winter, sometimes seem to grow suddenly shy in spring. They are not the same robins. E. K. R.



IN AN ALGIERS GARDEN: DATURAS IN FLOWER.

without being buffeted off by a stranger stronger than himself.

#### A CONTRAST IN MANNERS.

In the end, perhaps, all the tits get as much as they want; but it is interesting to note that the male tomtit—who seems to be the very soul of chivalry towards the female in spring, officiously hunting for the most savoury spiders, which she accepts with the tantalising nonchalance of the sex—should be so boorish in winter. One begins to doubt whether he can really be the same tomtit who nested in the hole in the old Apple tree, or whether he is

they are in England at the approach of winter. French owners of villas always have their gardens filled with trees, too much so for beauty, but it has to be said in their excuse that when one is obliged to spend the heat of summer out here there comes a time when one is quite sick of flowers, and shade is the one and only thing to be desired. In the French villages very good use is made of Plane trees, some of their market-places having really beautiful avenues of those trees, though there is a suspicion—with I do not know how much truth in it—that much of the ophthalmia of the country could be traced to

#### IN A LAND OF SUNSHINE.

##### AN ENGLISH GARDEN AT ALGIERS.

WHEN I left Algiers at the end of August the country had already put on her summer suit of khaki, the fields had got rid of every vestige of green, and all self-respecting gardens, whose owners were not likely to see them till November, were dug up almost as ruthlessly as



the pollen blown about from them. But even in the month of August any resident who wished for it, and had water at his disposal, could have his garden full of beautiful flowering shrubs and trees. In fact, we possess in our Jardin d'Essai, which was intended to be, and might even now be, a priceless legacy from the late Emperor and Empress of the French. This garden was founded, as its name implies, to get together, acclimatise, and propagate the flora of all climates and countries, temperate, tropical and semi-tropical, for the good of Algeria; and now that the country is given over to Vine-growing, and it is almost impossible to bring in any plants at all for fear of the strict laws against the importation of the dreaded Phylloxera, we could have turned to an inexhaustible treasury, and taken our choice of flowers and trees to suit every season. But, alas! for lovers of the beautiful, the senseless ingratitude which erased the name "Impériale" from all the improved streets or new boulevards in nearly all French towns; to substitute the misleading words "de la République," succeeded at the time in arresting this good Imperial work of the Jardin d'Essai. Though there are still some beautiful things left in it, for most fortunately what was already introduced might not be dug up, all horticultural and botanical

enterprise has ceased, and it has become a mere market garden for a few easily-grown and readily-sold products.

But to return to the month of August, there was still some natural colour about. The Morning Glory, if that is the true name of *Ipomæa rubro-cœrulea*, has long ago escaped from the gardens and acclimatised itself generally in the trees and hedges of the lanes, clothing itself anew every morning with a cool fresh suit of blue, and changing to purple and red before the evening. With this we see constantly associated the common wild rose-coloured Oleander, which, besides being a favourite in most gardens, fringes the banks of every dry watercourse all the way from the slopes of the Djurjura Mountains down to the very edge of the sea. Another great addition to the roadside beauty of the country has come through the enormous growth of vineyards during the last twenty years, and the consequent introduction of the novelties of hedge-rows, of which nothing has been found so suitable as the *Acacia eburnea*, not on account of its graceful pyramidal clusters of bright yellow globe-shaped flowers, nor of its delicious and penetrating fragrance, but for its most effective *chevaux de frise* of thorns, like polished ivory, often 4 inches in length, which make the thirsty wayfarer think

twice before making a raid on the Grapes beyond.

Now, as I write, in the month of December, all is changed again, for there fell in the course of the last month about 14 inches of rain, and I have returned from England to find the gardens with such a good start made for the winter season as they have not had for many years. This means, I hope, a pleasant winter as far as climate goes for English visitors. It is, in fact, the climate of twenty years ago, when Algiers as an English winter resort fancied herself more than she does now. Once more the Bougainvilleas, both the claret-coloured and the beautiful terra cotta-coloured *braziliensis* are out to welcome us back, and the Poinsettias and *Daturas* double and single. The latter have evidently three special periods of full bloom in the course of the year—March, June, and December. I believe that, like the *Stramonium*, the flowers of the single *Datura* (*D. Tatula*) has a patent medicinal effect in cases of asthma, for I remember that an asthmatic old carpenter who once worked for me used to beg for the privilege of taking home with him every evening as long as his job lasted all the dead and fallen blossoms of the day. He used to break the shrivelled flower in two and stick the thin end inside the other, and twist them up together in to a



MONSTERA DELICIOSA AND PAPYRUS IN AN ALGIERS GARDEN.



sort of cigarette, to dry for future use, and declared that it was the only remedy that made his nights endurable.

We are enjoying three very delicious sorts of fruit which are now at their best, the Custard Apple, *Anona Cherimolia*, and also *A. squamosa*, the latter being the choicer of the two; the green-skinned *Plaquemuse* (*Diospyros*), with a luscious apricot-coloured flesh, which has a most soothing effect on the throat, unlike its more brilliant relative the red-skinned *Diospyros Kaki*, which, unless it is on the verge of decay, leaves a very astringent after-taste in the mouth. If I am not mistaken these fruits are allied to the Persimmon of America. But best of all is the fruit of the *Philodendron pertusum*, better known in England as *Monstera deliciosa*. The flavour of this is difficult to describe, but I have just sent off two specimens to your address and hope in this way to convey some idea of it. My largest plant has now a considerable number of its curious thick ivory flowers, like enormous Lords and Ladies, and about sixty fruits of all ages, varying from one month to nearly eighteen, at which period they consider themselves ripe at last, break from their stems, and begin to shed their scales and send out their excellent perfume over the whole garden, an invitation to all the insects, birds, and rats about the place.

I have also sent you a photograph of this plant with a group of Egyptian *Papyrus* growing at its foot. I am only sorry that the photograph cannot give an idea of the rich chestnut colour of the sheaths out of which the slender stems rise into the air, with their graceful plumed heads; both of those plants enjoying apparently the same treatment—i.e., with their feet in the constant drip of water and their heads in the full blaze of sunshine.

E. A.

[We are very sorry that the publication of this interesting article has been long delayed. The manuscript was unfortunately mislaid for some time.—Ed.]

## THE KITCHEN GARDEN.

MUSHROOM GROWING IN GARDEN, FIELD, AND COTTAGE PLOT.

(Continued from page 404.)

FORMING BEDS.

USUALLY the season for forming Mushroom beds in houses begins towards the end of August. They cannot be satisfactorily grown in these structures in summer (the mode of culture suitable to this period will be treated of later on). The first essential to success is that the grower must be satisfied that the house is perfectly clean and sweet and free from insect pests—such as woodlice, cockroaches, &c. If he is not satisfied, now is his time to make sure, in the first instance, by clearing the house of every scrap of old soil or manure there may have been left from previous crops, and thoroughly to scald all the walls and other surfaces of the house with boiling water several times to make sure that nothing alive can escape. Sometimes these pests lodge in the roof, and the best way to destroy them is by burning sulphur in the house. All that will be left to do now to make the house ready is to have it carefully whitewashed with quicklime. When the manure is brought into the house it should first be placed loosely in the beds, and allowed to remain so for a few hours to let

some of the steam pass away. As soon as this has subsided the grower must then begin to form the bed, beginning at the end most convenient. The same principle of making the bed applies to beds of all shapes, and in various positions, according to the system to be adopted, therefore the mode of making the bed described here will equally apply to forms of beds under other systems. The grower should be provided with a wooden mallet and ram the manure well down as the work proceeds till a depth of 9 inches is secured. After all the available manure is worked up in this way the bed should be as hard as a board, and to make sure that it is so give a good treading down with the feet. A hole should now be dug out (in the middle of the bed) with a small trowel, large enough to place a small thermometer in. After placing it in cover over with manure, and indicate the place with a small label. After the lapse of twelve hours the temperature should be ascertained; it will probably stand at about 80°. If the manure is in proper condition the temperature should rise within the next twelve hours from 85° to 90°; it should be examined again at the end of another twelve hours, when the heat will probably be found on the decline, and as soon as it reaches from 80° to 82° then is the time to insert the spawn. Should it happen that the manure still inclines to rise in temperature then the preparation has been faulty, in so far that fermentation has been defective; and rather than let it overheat itself the bed should be again thrown open to cool and then reformed as before. It is, however, seldom necessary to do this. I shall have to say something about the quality, &c., of spawn when I come to treat of its manufacture.

### SPAWNING.

Old and partly spent spawn is useless; without healthy and active spawn good results are out of the question.

The size of a brick of spawn is usually 6 inches by 9 inches; this should be broken up by the hand into from nine to twelve pieces, and these pieces inserted in the bed 10 inches apart into small cavities previously prepared for them. These cavities should only be deep enough to

allow the spawn to be embedded a trifle lower than the surface of the bed. The spawning being completed as far as the lumps are concerned, we have still left the loose spawn which has fallen from the bricks in the act of breaking. This should be carefully collected and spread over the surface of the bed. This finished, a thin layer of the same sort of manure as that forming the bed should be spread over the spawn, and the whole surface again well pressed down with the wooden mallet previously spoken of. Further operations for the moment must be governed by the temperature of the bed. If this is steadily declining and has reached, say, a point of 75°, then the bed must be sealed down. By this is meant that a layer of soil (the siftings of turf which has been used for potting is the best material) should be laid over the bed about half an inch thick when finally pressed down. This soil should be, when applied, neither too dry nor too moist, so that it can be trodden down as firm as possible, and then well watered with tepid water afterwards and beaten with the back of a clean spade, so that the surface will appear almost as smooth as if coated over by a plasterer.

For the next month the cultivator will have little or nothing to do in the way of attendance on the Mushroom house. At this time of the year (September) his efforts must be directed to keeping the house as cool as possible, and all that is required is to damp the floor morning and afternoon with cold water. The house, of course, must be kept dark. At the end of a month after spawning the bed should receive a good soaking of water at a temperature of 80° applied through a fine rose water-pot. When I say a good soaking, I mean enough water must be given to soak the crust of soil well through—but not the manure. The young grower must not be too anxious or too curious or look for results too soon.

### THE CROP.

In about five weeks from the date on which the bed was spawned (the date must be indicated by a label) the grower's heart should be



A PROFITABLE MUSHROOM HOUSE.



gladdened by the sight of small disturbances here and there in places all over the bed, sometimes in irregular patches and sometimes in long thin lines—caused by the activity and running of the spawn, which is soon visible in streaks of white—as if cotton thread were woven over the ground. Every day will now add to the number of those and their size until, if all the conditions are favourable, the whole body of the bed is clothed completely with Mushrooms of the finest quality, a sight as pleasing and interesting as any garden crop is capable of presenting.

(To be continued.)

## NURSERY GARDENS.

### MR. R. C. NOTCUTT.

IN the late spring of this year, when the self Tulips were proclaiming their splendour, and the Pearl Bush was as white as a snow-drift with blossom, we paid a visit to the beautiful nursery of Mr. Notcutt at Woodbridge, the quaint Suffolk town, where once Fitzgerald lived and endowed it with a literary interest that clings to it as a precious memory of the past. This nursery of Mr. Notcutt's has a certain fascination to the student of English horticulture, for here Mr. Woods grew his famous flowers, and the old house was a meeting place of many an unbending florist, who, wedded to his theories about certain formalities in a flower, forgot, in his rigid conservatism, their value to the garden. The spirit of a bygone age clings to the now much-improved house, and as one looks up to the stately Corsican Pine on the hill top we see around evidence of the fashion of the times in the brave masses of hardy flowers and interesting shrub groups cultivated with the intelligent care that a well-managed nursery always reveals.

Those who wish to spend a few hours in a nursery rich in hardy flowers and trees and shrubs, and with broad acres of Roses and fruit trees beyond the noble parish church, the pride of Woodbridge, might with profit, if in this neighbourhood, stroll round the acres here. We chose the late spring, happening to pass through Woodbridge at this season, and saw Mr. Notcutt's big Tulips open to the sun in bed and border in front of the house. As this is bulb planting time, it will be useful to refer to a few of the species. We write species to separate them entirely from the Dutch Tulips, which are common to almost every garden, but the self or gesner kinds are different. We never pass a group of *Tulipa gesneriana* without full admiration of its glorious flowers, like satiny goblets filled with red wine, through which the sun glows and sparkles.

Unbending is the strong stem which holds this crimson chalice, and as the spring sun warms everything into life the petals open to show the inky base, dark and beautiful in the throat of the flower.

The Darwin Tulips were at their best when we visited Woodbridge, and we made note of Carmine Glow, bright crimson; May Queen, a soft salmon-rose touched with bronzy yellow; Hecla, deep crimson; Golden Crown, the yellow Retroflexa, Picotee, and a sweetly-scented orange-coloured variety named Prince of Austria. These are not all "Darwins," but the majority are of this vigorous race. It is a pleasure to the writer to watch the progress and opening of the late Tulips, the gradual uplifting of the stem, and swelling of bud till it opens in full splendour to the sun, for the colouring of the self or late Tulips is as gorgeous as any flower of summer or autumn. Parts of the nurseries are woodland. One walk enters by the Corsican Pine group and dips into a leafy hollow where in spring drifts of Daffodils appeared above the grass, and rough plantings of shrub lent rugged wildness to the hollows and shady grassy ways.

Through the sighing Pine trees the eye wanders

to the sunlit river by the edge of the town, and the smell of the sea seems mingled with the perfume of flowers.

The Corsican Pine walk is of much interest; it is thirty-five years since the trees were planted, and we got Mr. Notcutt to photograph it for us, as we believe in this Pine for shelter planting, by sea or inland. Near the group was the Austrian Pine, and many other species of value for park and woodland planting.

Of course, it is possible only to mention a few of the things which arrested our attention in a walk round the nursery; but we were surprised by its extent and the completeness of the collections, not merely of trees and shrubs and hardy flowers, but of fruit. Gum Cistuses grow with a freedom irritating to those with soils that do not quite suit this

plant of Heathy copse and woodland. The Maples were there in rich variety, and the Pearl Bush in full flower. This was illustrated in THE GARDEN of September 6 last; the bush stood out in a border untouched by anything near, and thus was able to show its graceful contour and wealth of spotless flowers. It is at home in the lightest of soils. A large Snowy Mespilus, Fern-leaved Beech, thousands of *Cistus laurifolius*, evergreen Oaks, the double Furze, a splendid mass of yellow, a shrub that all who have wild or rough openings in woodland should plant; Weeping Box, *Cryptomeria elegans*, and a host of flowering shrubs and conifers were passed in our ramble, and of the

#### HARDY FLOWERS

there is an almost complete collection. *Incarvillea Delavayi* was represented by several large masses, and it is interesting to note that the seed is sown where it is wanted to grow early in spring; it is quite hardy, but there is one point to note carefully, that is, the plant never starts into growth till the end of June, and therefore is apt to get dug up under the impression that it is dead. The big rosy purple flowers of the *Incarvillea* are very handsome. *Lathyrus rotundifolius*, which has brick-red flowers; *Phlox* Mrs. Jenkins, the best white herbaceous variety in existence; *Montbretias* in abundance, *Zauschneria californica* splendens, *Antirrhinum Crimson King*, with dark foliage and deep crimson flowers; *Anemone sylvestris plena*, the double white variety of the Snowdrop Windflower; the new *Campanula persicifolia* Moerheimi, the double *Arabis albidia*, the lovely annual *Arctotis grandis*, shown so well by Mr. Notcutt at the Holland Park show, double blue and double pink *Hepaticas*, the filmy *Heuchera micrantha* with its slender pinkish flowered stems 2½ feet high; *Anemone japonica* Lord Ardilaun and *Lady Ardilaun*, *Othonna cheirifolia* and *Delphinium Zalil* are only, of course, a few of the things in the collection. We mention them by name merely to show how representative

is this gathering together of hardy plants. It may interest dwellers in colder climes to know that *Francoa appendiculata* is quite hardy. It is unprotected, but in the light and warm soil spreads with surprising freedom, throwing up in the appointed season spikes 3 feet high. If this nursery had been in Exeter we should have expected the Bridal wreath to live out unharmed, but not in Suffolk.

A sweet whiff of fragrance came from a corner where the Violet Princess of Wales was saturating the air with its perfume. A royal flower is this, royal in its purple colouring, and its petals poised on stalks 15 inches high. Wall-flowers scented the fresh spring wind, and all around was bursting into life.

When spring meets summer then the borders



WALK OF CORSICAN PINE IN MR. NOTCUTT'S NURSERY AT WOODBRIDGE, SUFFOLK.

are bright with a hundred flowers till the time of Aster and Kniphofia in autumn, a procession of colour never wearying and never satisfying. Leaving this nursery, we walk to the hill above the town, where twenty-one acres are covered with

#### FRUIT AND FOREST TREES.

Stretches of Victoria and Czar Plums show the popularity of certain kinds, and close to them Berry's Early Kent, Whinham's Industry, Crown Bob, and Lancashire Bob Gooseberries are grown in great quantities, and Superlative and Norwich Wonder Raspberries too. The Myrobalan is grown largely for hedges, and Mr. Notcutt says that there is a great demand for this sturdy little Plum. These fruit acres are of much interest, because they are evidence of the needs of the age. One quarter is planted with Winter Orange Pear, which recently



was awarded a first-class certificate as a stewing variety by the Royal Horticultural Society, and of Bramley's Seedling, an Apple we have always regarded as one of the best of its class. Mr. Notcutt has exceptional trees in such quantities that the demand for his splendid Apples must increase.

Thus we walk over this breezy hill top and pass golden Elms, trees and shrubs for sea coast gardens, which Mr. Notcutt makes a strong point of, *Cupressus macrocarpa*, *Hippophae* (Sea Buckthorn), *Osmanthus ilicifolius purpureus*, and others, *Cornus Mas aurea elegantissima*, and many things too numerous to mention.

We shall visit here again we hope and learn more lessons. A bright day in an interesting nursery is never forgotten by the writer, and his notes, taken in those flower homes, are useful companions through a busy life.

## MISCELLANEOUS.

### THE HORTICULTURAL COLLEGE.

#### TRAINING OF WOMEN FOR SOUTH AFRICA.

**I** NOTE with much interest the announcement that the Horticultural College at Swanley has taken up this most important and useful work. If only the training be sound and entirely practical it should have the heartiest encouragement.

The use of ordinary carpenter's tools, which any woman of normal health and strength can acquire, is of inestimable use in any household, still more so on a colonial farm, many miles perhaps from any artificer. To this should be added, as a matter of primary importance, the use of the simplest saddler's or shoemaker's implements. The colonist's wife should know how to mend or even make a whip, how to put a few stitches with awl and waxed end into boot, legging, or harness, how to make and repair fishing tackle. The proper way of "whipping" with waxed twine comes useful in many ways.

All sorts of handy ways of using things should be learnt. An excellent exercise is the straightening of a quantity of bent nails on a block of iron or on a stone (a flat iron turned upside down with the handle let into a block of wood is a capital small anvil). The gardener's way of sharpening a knife, with a little sharp grit on a board, when a hone or "rubber" is not at hand, is a precious piece of knowledge. Right ways of making knots, and the waggoner's way of hanging up a rope, and numbers of simple sailors' and fishermen's ways of using simple things are of inestimable use. Even right ways of using paste and glue and tin tacks should be known.

Nothing in the way of practical knowledge, with the prospect of making good colonists, should be considered too trivial. Above all, the most commonly besetting sin of women of the middle classes should be strenuously combated—that of thinking themselves too grand for this or that, or for anything that can possibly be useful. Nothing is more surprising to women of the classes commonly ranked above them than this spirit of raising absurd difficulties upon matters of no importance; it is universally condemned in people of better education and wider views of life. Sometimes the obstacle is a mere word. An example quite recently came before the present writer of a woman of the servant class who had refused to have her Tea out of a tin tea-pot. The tea-pot was of pure block tin, had cost a good price, it was of remarkably good shape and appearance, and made excellent Tea. It was no use explain-

ing that pure tin was a rather costly metal, and that it was the most expensive ingredient in the "metal" tea-pot of lower price and worse shape that she habitually used, but that was then away for repair—no, the word "tin" condemned it; she would not drink Tea out of a tin tea-pot.

The prospective colonist should not only learn to use her hands and her wits, but should keep in mind the old knightly view of the dignity of simple service, whether of domestic service, of master or mistress, or of home, husband and children, and of Christian service to all humanity. *Ich dien* (I serve), the truly noble motto of our Princes of Wales, and one of the grandest in any language, should be always in her heart and at the tips of her fingers.

A SQUIRE'S DAUGHTER.

### THE PURCHASE OF ARTIFICIAL MANURES.

(Continued from page 273.)

BLOOD-MEAL, say 12 per cent. nitrogen  $\times$  11s. 9d. = £7 1s., together with about 5s. on account of a little phosphate.

Rape-meal, say 5 per cent. nitrogen  $\times$  11s. 9d. = £2 18s. 9d. per ton.

The values per ton for these three manures are considerably higher than the merits of the manures would warrant. These manures, in fact, are only worthy of a farmer's attention, under ordinary circumstances, when they can be bought at a rate per unit of nitrogen that is considerably less than that which applies to nitrate of soda or sulphate of ammonia.

Phosphatic manures are also valued in the same way. At the present time the insoluble phosphates in basic slag are valued at about 1s. 3d. per unit, and at this rate a sample containing 40 per cent. may be put at  $40 \times 1s. 3d. = £2 10s.$  per ton, carriage paid, while a 30 per cent. sample is no better value at 37s. 6d. As a rule, the lower grades cost more per unit than the higher qualities, so that the latter are usually the better value.

The soluble phosphate of superphosphate may, at present, be valued at about 1s. 9d. per unit. At this rate a 28 per cent. sample would cost £2 9s. per ton, carriage paid, while a 34 per cent. sample would be as good value at £2 19s. 6d.

In bone-meal—which should only be bought when very finely ground, really dust—the nitrogen is usually valued at about the same rate as that in sulphate of ammonia, while the phosphate may be put at the same rate as that which prevails for basic slag. On this basis, a sample containing 4 per cent. nitrogen, and 50 per cent. insoluble phosphates, would work out as follows, though it can often be bought for less:  $4 \times 11s. = £2 4s.$ ;  $50 \times 1s. 3d. = £3 2s. 6d.$ ; total, £5 6s. 6d. per ton, carriage paid.

In dissolved bones the market rate for nitrogen may be put at that which prevails for nitrate of soda, while the rate for the insoluble phosphate is usually the same as that in bone-meal. The soluble phosphate in this manure is exactly the same substance, chemically, as that in superphosphate, and yet it is generally valued about 1s. per unit higher. The only justification for this would appear to lie in the fact that the insoluble phosphate, being partly reverted, should be valued somewhat higher than that in raw bone, and raising the rate for the soluble phosphate makes some allowance for this. Taking these figures, and assuming a good sample of dissolved bones, we come to the following result: 3 per cent. nitrogen  $\times$  11s. 9d. = £1 15s. 3d.; 20 per cent. soluble phosphates  $\times$  2s. 9d. = £2 15s.; 16 per cent. insoluble phosphates  $\times$  1s. 3d. = £1; total, £5 10s. 3d. per ton, carriage paid. Although this is about the market rate for dissolved bones, it would appear to be higher than their intrinsic merit warrants.

Kainit can usually be bought at the rate of 4s. per unit of potash, so that on an analysis of 12½ per cent. of potash the price of a ton, carriage paid, would be  $12\frac{1}{2} \times 4s. = £2 9s.$

Sulphate of potash, containing 25 per cent. of

potash (corresponding to a purity of about 46 per cent.), would at the same rate be worth  $25 \times 4s. = 5$ ; while high-class manure, containing, say, 40 per cent. of potash (corresponding to a purity of about 74 per cent.) would be worth  $40 \times 4s. = £8$ . In point of fact it is generally found that in the higher grades of sulphate of potash the unit-value of potash is somewhat higher than that in kainit, so that, with kainit at £2 9s. per ton, the market value of sulphate of potash of a purity of 74 per cent. is likely to be about  $40 \times 4s. 3d. = £8 10s.$  With a light haulage, and especially if the manure can be applied in autumn or early spring, so as to admit of certain undesirable magnesia salts being washed out, kainit is usually the preferable manure; but for use at seed-time, and especially when mixed with other manures, sulphate of potash has advantages.

Muriate of potash is usually placed on the market of a purity of 80-90 per cent., corresponding to 50-57 per cent. of potash. Taking the former quality, and adopting the unit-value of potash in kainit, the price of a ton would work out at  $50 \times 4s. = £10$ . Generally a unit of potash in muriate is valued at a lower rate than that in kainit or sulphate of potash, so that the market quotation per ton is likely to be about  $50 \times 3s. 9d. = £9 7s. 6d.$  Muriate of potash, in fact, usually offers the cheapest supply of potash, and for most crops it is probably as effective as any potash manure, while for Potatoes it would seem to be superior.

The most important example of a manure holding nitrogen, phosphates and potash is Peruvian and similar guano. The composition varies within wide limits, but the following may be taken as an example: Nitrogen, 12 per cent.  $\times$  11s. 9d. = £7 1s.; soluble phosphates, 5 per cent.  $\times$  1s. 9d. = 8s. 9d.; insoluble phosphates, 15 per cent.  $\times$  1s. 3d. = 18s. 9d.; potash, 2 per cent.  $\times$  4s. = 8s.; total, £8 16s. 6d.

Such a manure, however, would probably be priced at a much higher rate, so that guano, like bones, would appear to be still under the influence of past traditions.

It may be pointed out that the purchase of manures at a certain rate per unit, subject to analysis by an approved chemist, makes a farmer largely independent of variations in quality. If, for instance, he agrees to pay 1s. 3d. per unit, including carriage, for phosphates in basic slag, it is a matter of comparative indifference to him whether the consignment proves to be of 35 per cent. or 40 per cent. quality. In the former case the price per ton would be  $35 \times 1s. 3d. = £2 3s. 9d.$ , while in the latter case it would be  $40 \times 1s. 3d. = £2 10s.$ , and the value would be as satisfactory in the one case as in the other. Needless to say, he would not apply the manure to his land till he was in possession of the analysis, and then he would regulate the dressing with some regard to the quality of the material.

J. J. WILLIS.

## THE FRUIT GARDEN.

### FRUIT IN SEASON.

#### APPLE DR. HARVEY.

**M**R. FIELD sends from Ashwellthorpe Gardens, Norwich, fruits of this excellent Apple, which we shall figure shortly. It is of conical shape, about 2½ inches high, a trifle broader, almost smooth, and yellow with dabs of russet, the flesh yellowish, brisk, and agreeably flavoured. Some would esteem it for dessert, others for cooking. Our correspondent sends the following note: "Apple Dr. Harvey is a great favourite, and is extensively cultivated in this locality. The tree grows to a large size, is very hardy, and a most prolific bearer. The fruits always find a ready sale, and realise a good price."



## KENTISH PIPPIN.

Mr. Field also sends fruits of this Apple, which is about the same size as Dr. Harvey, and reminds one a little of Cox's Pomona. It is flushed with red, and round the eye are five knobs, which extend into somewhat prominent ribs; the flesh is white and acid, but not unpleasantly so. Mr. Field writes: "This is another Apple that does well in this neighbourhood. The tree is strong and vigorous, large, and bears abundantly, and the fruit is eagerly sought after in the markets. With these two kinds and others quite as good, it is vexing to find many of our orchards and gardens still crowded with worthless sorts, some of which rarely produce anything, and when they do so the fruit is almost valueless. When will the farmer and cottager wake up to the fact that good Apples need no more space and grow in the same soil and far better than bad ones?" With these remarks we quite agree, and have given this advice repeatedly till those who have followed it must think its repetition wearisome. But fruit growing in these isles is in its infancy.

## A NEW APPLE.

## APPLE NORFOLK BEAUTY.

A SPLENDID new early cooking Apple is Norfolk Beauty, the result of a cross between Warner's King and Waltham Abbey Seedling. It is a large and handsome fruit, of flattened conical shape, a good yellow in colour, almost equal to Golden Noble in this respect. It should prove a good succession Apple to Lord Suffield. Mr. Allan, head gardener to Lord Suffield, Gunton Park Gardens, Norwich, exhibited this new fruit at a meeting of the Royal Horticultural Society held on the 9th inst., when the fruit committee gave it a first-class certificate. An award of merit was given to it last year.

## THE BEST PLUMS FOR WALL CULTURE.

THE following are specially recommended for culture on walls, and most of them are distinct and first quality dessert Plums. I have included a few, distinguished by their large and noble appearance, which may not strictly be termed dessert sorts, seeing that they succeed well as dwarfs, pyramids, and standards in the open ground, and so cultivated are excellent for culinary purposes, but the improvement effected by wall cultivation in the size, quality, and flavour of these varieties is so great that it raises them in value to such a degree that their inclusion among the best for dessert and exhibition purposes is justified.

## THE GAGE VARIETIES.

These are numerous, and all distinguished by high quality and delicious flavour, and among so many varieties that possess this merit it would seem invidious to point out any one special variety as possessing this particular quality in excess of the others, but the truth must be told, and speaking from my own experience I readily give the palm for delicious flavour to Denniston's Superb. In addition to this it has the merit of being one of the earliest of the Gages, and hangs for a moderately long time on the tree if securely protected from birds, &c. It attains to a good size; in outline it is nearly round, of a greenish-yellow colour, and the tree is an excellent grower, succeeding well as a cordon or a pyramid, but the fruits lack the size and quality obtained when grown against a wall.

*Old Green Gage.*—Too well known and appreciated for its splendid qualities as one of the most delicious dessert Plums to need further description. The tree is a strong grower, and in its young stages requires guarding against gross growth by root pruning.

*Brahys Green Gage.*—This is a fine exhibition variety of large size and excellent flavour, very much like the old Green Gage, but larger and earlier.

*Brandy Gage.*—This is of medium size to small, colour yellow, with dense white bloom; ripe in August; flavour melting and sweet.

*Bryanston Gage.*—This is a fine hardy Gage, succeeding well in the open, but deserving also to be included amongst wall Plums, as grown in this way it attains a good size, and is fine for exhibition.

*Oullin's Golden Gage.*—Very handsome early variety, which should be included in every collection, also succeeds well in the open, even as a standard in the orchard.

*Purple Gage.*—For variety of colour in the Gages this Plum should be grown. It succeeds well against a wall, and is one of the sweetest of Plums. It does not succeed so well planted in the open.

*Coe's Golden Drop.*—As a late dessert Plum this well-known variety is perhaps the most valuable and highly prized of all known dessert Plums. Planted against an east wall the fruit is ripe towards the end of September, and if properly protected against birds and wasps the fruit will hang on the tree until well into November, and the flavour, instead of deteriorating, is improved by this long hanging, until at last the flesh is transformed into almost a liquid elixir of exquisite delicacy and flavour. A few trees should be planted against a north wall in order to prolong the season, and should hard frost be apprehended whilst the fruit is still hanging on the tree it may be picked and carefully placed in the fruit room, where it will last in good condition for a considerable time. The variety is a good grower and cropper, and I would advise its being largely



APPLE NORFOLK BEAUTY. (First-class certificate, Royal Horticultural Society, December 9. Three-quarters natural size.)

*Comte d'Atthem's Gage.*—One of the best late Gages, the tree a good grower and sure cropper.

*Golden Transparent Gage.*—Another very excellent and indispensable late sort, raised by Messrs. Rivers, and awarded the first-class certificate of the Royal Horticultural Society.

*Transparent Gage (New Early).*—One of the best flavoured and richest dessert Plums we have, of large size, and grand for exhibition. First-class certificate of the Royal Horticultural Society.

*Reine Claude de Baray.*—This is the most prolific and hardy of all the Gages, and succeeds well in the open, either as a standard, pyramid, or bush. It crops as freely as any Plum I know, after the tree has attained a fair age. This of all the Gages is the one to grow for market purposes, for in addition to its robust growth, hardy character, and good bearing qualities, it has the true Gage flavour and appearance.

*Transparent late Gage.*—A new variety of great promise, raised by Messrs. Rivers and Sons; it has received the first-class of the Royal Horticultural Society, and will prove invaluable for late dessert.

planted, as the fruit comes in most useful in the late autumn when Peaches and Nectarines are over. This Plum was a great favourite with Her Majesty the late Queen Victoria, and if not sent in for dessert at the usual time she would always want to know the reason why.

*Transparent Gage.*—This is an old variety (and distinct from Early and Late Transparent), and should be included in every collection, as in the estimation of many, taking it all in all, it is one of the finest of the Gages.

*Jefferson.*—This fine Plum is too well known to need description. It is one of the handsomest and best flavoured among our large Plums, indispensable both for dessert and exhibition.

*Kirke's Blue.*—Also one of the best known Plums and perhaps the handsomest among the dark ones. A good grower, heavy cropper, and of delicious flavour.

*Reine Claude Violette.*—A purple Plum of medium size and exquisite flavour. Well worth planting against a wall.

*Washington.*—A well-known variety and in-



valuable for exhibition purposes, being one of the handsomest of the golden-coloured sorts. The tree is a robust grower and free cropper.

The following are, strictly speaking, culinary sorts, but when grown against a wall are admissible as dessert and for exhibition purposes are invaluable:—

*Archduke*.—One of the handsomest dark Plums, much improved in flavour when grown on a wall and good for exhibition.

*Monarch*.—Well known as a grand late variety, and esteemed by market growers as the most lucrative sort to grow for sale. Suitable for the orchard or garden, and when grown against a wall is good for dessert and grand for exhibition. Colour purple.

*Prince Englebert*.—This also is much improved by wall culture, and seeing it is one of those varieties which hang for a long time on the tree when ripe it comes in useful for late dessert. Dark and handsome.

*Royal Hative*.—A dessert Plum of great merit, medium size, and one of the richest flavoured of the purple varieties.

*Pond's Seedling*.—A very attractive red Plum, attaining immense size when grown on a wall, and fine for exhibition.

*White Magnum Bonum*.—When grown against a wall this is the handsomest of yellow Plums, and makes a most attractive dish, either for the dessert or the exhibition table. The twenty-four varieties above enumerated represent the best dessert varieties suitable for wall culture. Varieties for the garden and orchard I must leave for another article.

A. P. H.

## CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

### THE SWEET POTATO AND YAM.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—During the period of stress which our Sugar-growing colonies in the West Indies are passing through, pending the abolition of the foreign Sugar bounties, the attention of the planters has naturally been given to other produce. In Barbados great success has been achieved in the cultivation of Sweet Potatoes and Yams of the very best quality, and an endeavour is now being made to introduce these into this country. The Sweet Potato is a cheap and palatable vegetable, but a good Yam is a positive luxury.

During a long residence in London I imported several barrels every year for my own use, and out of the numerous guests who tasted them at our table there was not one who did not highly appreciate them. I may add that here the flavour is even more delicious than in the West Indies, as Butter, which is a vital ingredient in a well-cooked Yam, is so much better.

I am returning to Barbados almost immediately, but any information on this subject will be given by Messrs. W. Pink and Sons of Portsmouth, who are importing regular supplies. Recipes for various ways of cooking both Sweet Potatoes and Yams are sent out with every parcel.

F. M. ALLEYNE,

Member of the Legislative Council of Barbados.  
Junior Carlton Club, London.

### STILL (?) OCTOBER.

[TO THE EDITOR OF "THE GARDEN."]

SIR,—A prettily written article appeared in these pages a few weeks ago under the above heading, minus the query, in which the writer, after suggesting that "old-fashioned Christmases, all icicles and robins," &c., are only figments of the imagination, dilated on the stillness of October. One sentence runs: "The charm of the tenth month is its stillness." Perhaps the locality in which I reside differs from the rest of England in its

atmospheric conditions, for with the experience of a good many years I should certainly hesitate to add the prefix of "still" to October. That there are quiet windless days I admit, and those that take their pleasure in the open air in such a spell of calm might be led to conclude that calm was characteristic of the month, but might not this also be a "figment of the imagination?" Still days there may be, but a week of halcyon weather does not make a still month. Smarting under the injury inflicted by a heavy south-westerly gale, which tore the Michaelmas Daisies from their stakes, wrenched off the leaves and flower-heads of the great Crinums, and laid *Abutilon vitifolium* level with the earth, I read the article landing October's stillness with a wry smile, and wondered whether this was an exceptional October, and if it was normally a still month. I seemed to remember other October gales, but vagaries of the weather, unless they approach in gravity the memorable blizzard of March 11, 1901, when thirty-six trains were snowed up in the south-west, soon pass out of mind, and for the last half decade or so I had kept no records wherewith to refresh my memory. Some years ago, however, I was in constant touch with a well-equipped meteorological station, and my notes on the weather, gathered from this source, appeared monthly in *THE GARDEN*, and to these I turned to discover the character of October in the past. I found that though in one year there were only two months stiller than October, an average of the series gave it the seventh place out of the twelve months for wind-force, while in the year that included the windiest October there were only two months more boisterous. Although by no means proving a still month in the average wind movement, October's status as regards highest hourly velocity comes out even worse, strong winds or gales being registered almost annually, while on one occasion, about twenty years ago, the greatest wind-force of the whole year was recorded. My remarks are not intended to apply to the British Isles as a whole, but only to the south-west coast. In other parts October may possibly enjoy a well-merited right to be entitled "still," though I confess I doubt it.

S. W. F.

## GARDENING OF THE WEEK.

### INDOOR GARDEN.

#### HOTHOUSE PLANTS.

PLANTS that are resting, such as *Allamandas*, *Clerodendrons*, and *Dipladenias*, may be stored in an intermediate house during the winter. They should be examined occasionally, and but little water given to the roots during the period of rest. *Gloriosa superba*, which is resting, may be stored in the pots away from moisture until the time comes round for starting it again.

#### GLOXINIAS.

Summer-sown seedlings that are coming into flower should be given a moderately dry atmosphere. Later plants in small pots that are well rooted should be moved into larger pots. Thorough drainage, dry and clean pots are necessary, together with a light porous compost of fibrous loam, leaf-soil, and peat; add also coarse silver sand and a little finely broken charcoal. In potting avoid covering the centre of the plant, but the leaves may be allowed to rest on the soil. Keep the plants in a moist warm atmosphere with a temperature of about 55°.

#### PALMS.

At this season of the year too much water at the roots is most injurious to these plants, and every care should be taken to give sufficient only. The necessary moisture in the atmosphere should be provided by damping the floors and stages; the plants should be thoroughly overhauled and the foliage sponged.

#### ROSES IN POTS.

A succession of these plants should be removed indoors, and but little fire-heat given at first. The

plants should be syringed until the shoots are about an inch long, and the moisture from evaporation will generally be found sufficient; the plants must not be crowded. In the early stages of growth they should be kept rather dry, but as growth progresses the supply of water should be increased. A careful watch should be kept for insect pests, and prompt measures taken to eradicate them.

#### GENERAL REMARKS.

Constant attention must be paid to the overhauling of stored bulbs, such as *Caladiums*, *Gloxinias*, *Gesneras*, &c. Drying off is frequently practised wrongly. These plants as soon as they have done flowering are often put on one side, and very little care bestowed on them until the season for growth comes round again. It is important, however, that they should not be dried off too quickly, and when stored away must never be baked; this, like too much moisture, will often cause the loss of the bulbs.

Wexham Park, Slough.

JOHN FLEMING.

## THE KITCHEN GARDEN.

#### THE FRAME YARD.

If not already done lose no time in turning over into tidy heaps old and disused hot-beds, which will make excellent material for giving many of the kitchen garden crops a good start in the new year, and a general clear up should be made in this important part of the garden before the end of the year.

#### HOT-BEDS.

These should be built up largely new, and they are best made with good leaves, using just sufficient long stable litter to hold them together. Great care should be exercised not to plant or sow when the heat is too great. Far better err on the side of its being cool than otherwise. The mildest heat possible is sufficient for starting into activity such as Potatoes, Carrots, Radishes, Asparagus, and the like, and if the beds are properly made the temperature can easily be raised by adding fermenting material as lining to the frames. It is a good plan to arrange so that Potatoes and Carrots follow Asparagus, there being generally plenty of warmth left to give these a start.

#### VACANT GROUND.

Take advantage of any frosty mornings to get all the manure, &c., wheeled where required, as this means a saving of much labour and mess. Push forward digging and trenching as speedily as possible, especially so on light soils. Do not be afraid to bring the subsoil to the top. Endeavour to make as deep a root run as possible, which is certain to pay in the end. Leave the surface in a lumpy condition, making no attempt to break it up; the weather will do this better than we can. Plants being wintered in cold frames should have plenty of protecting material round and over them in severe weather, but advantage should be taken on all favourable occasions to air them freely, and remove all decaying leaves and rubbish.

#### TOMATOES.

Make a small sowing in a strong heat of some good variety for fruiting early in the spring. As soon as young seedlings appear place them on shelves near the glass, and pot off into 2½-inch pots as soon as ready. Use a light sandy compost well warmed, and endeavour to encourage as sturdy a growth as possible from the seed leaf till the plants are in fruit, and so much better will be the returns. Plants which are now in flower will need careful and constant attention to ensure a free set.

Maintain a temperature of about 60° and keep as dry as possible. The flowers should be fertilised daily and the roots kept moderately dry. Those in full bearing will succeed best in a temperature of about 65°. Keep both foliage and roots moderately dry, and give manure water occasionally. Of roots of various kinds which are still in the ground sufficient quantities should be taken up and stored where easily obtainable to last for a few weeks in case of severe weather; the roots will comprise such as Artichokes, Parsnips, Chicory, Salsafy, Scorzonera, Turnips, *Stachys tuberosa*, and Celery.





IN THE ROCK GARDEN AT BEAR WOOD, BERKSHIRE, THE RESIDENCE OF MR. A. F. WALTER.

Rhubarb roots which will be required for forcing should also be lifted. Celery should be protected with Bracken or straw whenever the glass is likely to register anything below 12° of frost, but this should be removed whenever the weather will allow. Lift all Broccoli which shows signs of turning in and store in cold sheds or frames.

E. BECKETT.

*Aldenham House Gardens, Elstree, Herts.*

## THE FRUIT GARDEN.

### PRUNING BUSH APPLES.

THE bush and Pyramid forms of Apple trees are now very commonly planted, and when properly managed they are very prolific and produce fruit of excellent quality. A common mistake made in the management of these trees is that of allowing the branches to become crowded. This can easily be guarded against in the case of young trees by cutting out shoots which cross others better placed, also cut out those that incline inwards. In pruning a tree, the object should be to have a foundation of branches inclining away from the stem, with enough, but no more, side branches to furnish it properly. If this was borne in mind and carefully carried out during summer pruning, all that now remains to be done is to shorten the young growths to about two-thirds of their length, in order to form spurs and sufficient subsidiary

branches. Prune to an upper bud pointing outwards. In the case of established trees thin unduly crowded spurs, and do not hesitate to cut out misplaced branches.

### STANDARD TREES.

Young trees of this description should receive similar treatment to that advised for bush trees, and old trees should have their branches thinned if necessary. It is not advisable, however, to severely thin in one season. It is better to allow the work to extend over a few years, as severe treatment in such cases invariably causes a check.

### DRESSING FRUIT TREES.

Once pruning is completed, cleaning the trees of insect pests, lichen, &c., should be taken in hand, as this can be best done in the winter. In the case of those affected with American blight, remove the loose bark beneath which the aphid has secreted itself, and then apply petroleum emulsion by the aid of a suitable brush to the affected places, thoroughly working the insecticide into the crevices, &c. The best remedy to free trees from scale, the eggs of destructive moths, lichen, and moss is undoubtedly the now well-known preparation of caustic soda and potash. This is best applied by spraying the trees with it in a hot state in mild weather, taking care that the entire surface of the bark is reached. Freshly slaked lime dusted over the trees when they are damp

will eradicate lichen and moss, but the soda and potash solution is more efficacious.

### MISCELLANEOUS WORK.

During frosty weather farmyard or stable manures, charred refuse, wood ashes, and similar material may be conveyed to orchards or other plantations of fruit trees or bushes that require nourishment. Sewage manures, that are at this season not unfrequently allowed to waste, may also be utilised in favourable weather by being applied to wall or other trees and bush fruits that have exhausted their soil resources. It is an error to suppose that these nourishing manures are of little or no value to trees while they are apparently in a restful state.

T. COOMEER.

*The Hendre Gardens, Monmouth.*

## ORCHIDS.

### HEATING, DAMPING, AIRING, &c.

IN the Phalaenopsis, stove and warm Cypripedium houses maintain a temperature of 70° by day and 65° by night. No air should be admitted when the weather is very cold or cutting winds prevail. When the weather is mild a little should be admitted by the lower ventilators. Damping these houses is of the utmost importance at this season, for a dry parched atmosphere would be highly injurious to the occupants and favourable to the increase of insect pests. A too moist atmos-



phers must also be avoided, as this would be injurious in other ways. The outside conditions must be considered and moisture distributed accordingly. When wet and mild, damping once a day may be quite sufficient, while if excessively cold twice or three times may not be too often to counteract the drying influence of the hot-water pipes.

#### THE CATTLEYA HOUSE.

Where the majority of plants are in a state of rest anything that would unduly excite growth should be guarded against. If a temperature of 65° by day and 60° by night is provided the plants will pass through the winter safely. Much less moisture is needed in these houses. One had better err on the side of dryness rather than have the atmosphere too moist. A little air should be admitted by the lower ventilators if the outside temperature is above 35° and it is not windy.

#### THE MEXICAN HOUSE

should receive similar treatment to the Cattleya house, but the temperature may fall a few degrees at night, 60° to 65° by day and 55° to 60° by night being all that is needed, as the occupants of this house are like the Cattleyas (inactive), and need a long season of rest. The Dendrobiums, wardenia, and the noble section, too, rest well under these conditions until showing their buds, then rather more heat is necessary.

#### THE COOL INTERMEDIATE HOUSE.

In this a great number of plants are growing. *Miltonia vexillaria*, &c., *Cymbidiums*, and *Sophranitis grandiflora* have not yet finished. A little more moisture in the atmosphere is needed than in the Cattleya or Mexican houses, but this must not be carried to excess. A temperature of 65° by day and 60° by night should be maintained, and a little air admitted by the bottom ventilators when the outside temperature is not below 35°, and increased as the outside temperature rises.

The house containing the cool section of *Cypripediums*, *C. insigne*, for example, should have a temperature from 55° to 60° by night and 60° to 65° by day, a moderately moist atmosphere and the lower ventilators a little opened when the temperature outside is not below 35°. The

#### ODONTOGLOSSUM HOUSES

should now be artificially heated to 55° by night and 60° by day with a moist atmosphere, guarding against an excess of wet if mild, and avoid anything approaching a dry parched atmosphere when excessively cold. Admit air by top and bottom ventilators if mild, when cold by bottom only, and never entirely close the house unless there is a frost. The *Odontoglossums* of the crispum section are growing freely and many pushing their flower-spikes. If slugs are troublesome, cotton wool should be placed neatly and somewhat loosely around the base of the spikes (slugs will seldom pass over this). Valuable plants showing their spikes should be stood on inverted pots in pans of water, and see that the plants do not touch anything whereby slugs can gain access to them. This section of *Odontoglossums* seldom fails to produce spikes, which, if allowed to remain and bloom every year, will greatly weaken the plants; if allowed to bloom every alternate year it will be better for them, as the health of the plants must be the first consideration, especially the more valuable kinds. They should therefore be examined at intervals, and as soon as the spikes are visible pinch them out from all weakly plants and those that bloomed last year.

#### CLEANING THE HOUSES.

This is important, and cleaning the plants far more so. Orchids cannot be kept too clean, and this will now occupy the greater part of the cultivator's time. When cleaning a house remove all plants in order to prevent water getting into the axils of the leaves, which to many plants would be injurious at this season. It is best to do the dirty work first and clean afterwards. First scrub the pots as the plants are taken from the house, then the roof, walls, and staging. If the latter are of teak wood they should have a coating of boiled linseed oil, which will greatly preserve them. Clean

the glass inside and out, sponge and clean every plant thoroughly and return to their respective positions, and so arrange them that each may get an equal share of light.

#### COVERING THE HOUSES.

Where lattice blinds are used lower them on all the houses on cold nights, or cover the cool houses with mats. This will, to some extent, do away with fire-heat and economise fuel.

F. W. THURGOOD.

Roslyn Gardens, Stamford Hill, London, N.

## BRITISH HOMES AND GARDENS.

### WOODHATCH, REIGATE.

THE late Mr. T. B. Haywood's love of horticulture and the interest he took in the art as a means of recreation and rest from his large and absorbing business are well known. This is also evident by the beautiful garden he has created at Woodhatch. Efficiency and simplicity of working seem to have been the guiding principle in all he undertook. This is specially manifest in the building and arrangement of his many glass houses, as well as of the hardy fruit and vegetable gardens. No one can help but be impressed by the clever and ingenious way in which the glass houses and the utilitarian part of the garden have been effectively concealed from the house by planting, though but a few yards distant. The pleasure grounds surrounding the house may not inappropriately be termed a pleasure garden within a pleasure garden. This part of Surrey is a veritable and beautiful garden in itself, on all sides hills and dales abounding, clothed by rich and luxuriant vegetation and noble trees in great variety. On one side of the public road near the house is one of the handsomest Maidenhair trees (*Salisburia adiantifolia*) we have ever seen. It is from 60 feet to 70 feet high, and at the time of our visit gave one the impression of being a huge column of gold, from the colouring of the dying leaves.

Entering the gates the house is approached by a beautifully curved drive, flanked on either side by banks of trees, one tree especially being worthy of notice, a beautiful Beech, one limb of which, instead of growing upwards in the usual way, has spread out horizontally, spanning the drive completely with a cordon of pleasing foliage. Facing the entrance hall door is a charming bit of garden landscape, a glade of grass rising gently until in the distance its apex forms the sky line. A few specimen trees have been thoughtfully planted here and there, but not in sufficient numbers to mar the effect or lessen the beauty of this pretty glade, each side of which is planted with forest and other trees now of large dimensions.

The late Mr. Haywood's interest in horticultural matters was not confined to his garden at home. He was for many years a member of the council of the Royal Horticultural Society, and took a warm and practical interest in its welfare. The garden charities also found in him a good friend. He was for some years treasurer of the Gardeners' Orphan Fund. But we question if any horticultural event or function of the year gave himself and Mrs. Haywood greater pleasure than the annual visit of horticultural friends to see his Chrysanthemums, Orchids, Pelargoniums, and other winter-flowering plants in bloom and to partake of his and Mrs. Haywood's boundless hospitality.

These were days of real enjoyment to his guests, as I am sure they were to the hosts. Horticulturists will be pleased to know that the same interest is taken in gardening by Mrs. Haywood and her only son (now the head of his late father's firm) as was shown by Mr. Haywood, and the same welcome and hospitality extended to horticultural friends. It was on the 4th inst. that such a party visited Woodhatch, and after luncheon were escorted over the garden by Mr. Haywood, going first into the *Odontoglossum* houses, where the plants, although

of course out of bloom at this season, looked the picture of health, and gave promise of a rich return in bloom next spring. The *Vanda* and *Cypripedium* house was the next to receive attention, and much of interest was to be seen, a fine plant of *V. sanderiana* being in bloom, many choice *Cypripediums*, and a host of tiny seedlings in all stages of growth. Coming to the *Dendrobium* house, the visitors were highly pleased at the excellent health and condition of the plants, such clean, firm, and free growth is seldom seen; they were mostly seedlings raised at Woodhatch. The *Cattleya*, *Masdevallia*, and *Phalenopsis* houses were next visited, and afforded the visitors much pleasure and interest, especially the *Phalenopsis*, the plants being excellent, many showing strong flower spikes. We noticed also that *Pleiones* in variety (*Indian Crocus*) and the pretty white *Masdevallia tovarensis* were grown in quantity.

Winter-flowering *Pelargoniums* are always a great feature at Woodhatch, a span-roofed house being devoted to them. No plant gives a more cheerful and brilliant effect from November to Christmas than does this, and nowhere is the plant better grown. The *Chrysanthemum* was a special favourite of Mr. Haywood, and the collection at Woodhatch is well known to have been (and is still) one of the best and most complete in the London district.

Fruit under glass is not extensively grown, but hardy fruit is well represented, and not the least of the pleasures of the visit is a call at the well-equipped and excellent fruit room, usually brimming full of well-grown and well-coloured fruit, offering to the expert fruit growing visitors an excellent opportunity of comparing notes as to the merits of the flavour of these Apples and Pears which may be in season at the time.

Some gardeners might possibly view with unpleasant apprehension the annual visit of so many horticultural experts to examine critically and admire (or not admire) the result of their skill and labour year by year, not so with Mr. Salter, the head gardener; on the contrary, we believe he anticipates their visit with as much pleasure as his employers, and this says much for his skill, industry, and competence in managing the Woodhatch garden. Much more might be said of the extensive pleasure grounds surrounding the house, and the rare and beautiful trees with which they are planted, as well as of the flower and Rose gardens, also of the model farm and stables, but enough has been said to give the reader at least some idea of Mrs. and Mr. Haywood's beautiful home.

O. T.

## BOOKS.

### Easily-grown Hardy Perennials.\*

This is quite an amateur's book about hardy plants, and will prove helpful, as the information is clear and practical. It is profusely illustrated, but the author cannot be congratulated altogether upon his publisher. Some of the pages are badly printed and the illustrations far from satisfactory; but the amateur desires practical advice, and this will not be sought in vain.

**The Amateur's Greenhouse**, from the same publishers, is written by Mr. T. W. Sanders, and it is almost needless to write that for the beginner and amateur in general the work is excellent, as Mr. Sanders' books are already well known. Many amateurs will welcome this volume, especially at this season when our thoughts turn from the garden outdoors to the garden indoors, where *Pelargoniums* and other winter flowers bring sunshine to the home. There are chapters upon construction, heating, the proper plants to use, &c., and we feel certain that "owners of small greenhouses will find the book a practical and reliable guide to the management of the greenhouse and the successful cultivation of its contents." The book is better printed than "Easily-grown Hardy Perennials."

\* "Easily-grown Hardy Perennials." By G. H. Vos, B.A., and edited by T. W. Sanders. Price 5s. W. H. and L. Collingridge, 148 and 149 Aldersgate Street London, E.C.



# THE GARDEN

No. 1623.—VOL. LXII.]

[DECEMBER 27, 1902

## HORTICULTURE IN 1902.

**W**ITH the present issue another year draws to a close, and we again review the horticultural events of the past twelve months. The year has been full of incidents, as our pages show, and it is evident that the horticultural calling is of unceasing activity and importance, events occurring in rapid succession in all parts of the British Isles, with an all-round desire to acquire a knowledge of gardening for the sake of health and wholesome recreation.

The great event, perhaps, of the year has been the adoption by the meeting, convened by the Royal Horticultural Society, of a Hall as a suitable means of celebrating the fast-approaching centenary. *THE GARDEN*, though desirous of acquiring proper trial-grounds for the society, gave every assistance in its power to the council in its efforts to raise the large sum of £40,000, but the recently-shown plans have met with disapproval so strong and sincere that if persisted in as they are at present, those who have subscribed will have many misgivings as to the wisdom of their practical assistance.

Many influential Fellows have still to give, and the council will be wise to take heed of the sharp and well-merited criticisms of those who are deeply interested in all that concerns the society to which they belong. The Hall should show beauty of design and practical utility, and prove a building horticulturists from over the seas can regard with feelings of pleasure and pardonable envy. Several meetings have been held, all presided over by the President with rare tact and charm.

Another great event was the beautiful Coronation show held by kind permission of the Earl of Ilchester in the park of Holland House, and the private gardens were opened also on special payment in aid of the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund, but the serious illness of the King threw a deep gloom over the proceedings, and, we may say, the whole Coronation festivities. The Rose conference was a great success, and the papers read by the many authorities will be treasured when they appear in the society's valuable journal.

The Temple Gardens were again the scene of two great exhibitions, the Royal Horticultural Society's May display presenting much the same features as in previous years, but the

visit of their Majesties and Princess Victoria will be remembered with pleasure. The exhibition of the National Rose Society, as we mentioned last week, was a financial failure, but a Rose show in London has had the excellent effect of greatly increasing the list of subscribers, which means a firmer foundation for the whole structure.

The meetings of the Royal Horticultural Society in the Drill Hall have been interesting and varied. We look back upon this year in particular with pleasure, having in mind the many displays which have brought together large and interested crowds. Never have Roses made a braver show in autumn than this year, and we hope the National Rose Society will take heed of the fact and establish a competitive display for September.

The National Chrysanthemum Society has held its last show in the Royal Aquarium, which has been acquired for other objects, and we hope a suitable home will soon be discovered for the three great exhibitions which have attracted much attention in the past.

The weather has tried the health, patience, and temper of the gardener, whether amateur or otherwise. Cold winds and rains until June was far spent prevented growth, and the Apple crop proved a complete failure, whilst few other fruits were satisfactory. An absence of flavour in almost all fruits was noticeable, due to want of sun and a low temperature.

In reviewing the past year our thoughts turn to those who have gone from our midst, but whose work among the flowers remains a pleasant memory. Of amateurs devoted to their gardens we mourn the loss of G. F. Wilson, of Weybridge; of Dr. Stuart, of Chirside, who raised many beautiful Pansies; of C. J. Grahame and Horace Radclyffe Dugmore; and of nurserymen, William Bull, of Chelsea; and, among others, Charles Maries.

Again we heartily thank those friends of *THE GARDEN* who have helped us in the past, and with this help in mind we set forth with renewed courage for the work of another year, for without our many contributors, those who have long been associated with *THE GARDEN* and those we may claim as new friends, our work would be weary and dispiriting. Again we especially thank those who kindly send occasional notes to interest and instruct readers who need the helpful guidance of amateurs able to give advice.

The British nation is at peace, at least free from serious strife, and with this welcome

thought in mind we are justified in hoping that the year so soon to begin will bring increased prosperity and widespread happiness to all our dominions.

## THE HORTICULTURAL HALL.

### THE PLANS.

It is to be hoped that an affirmative answer may be obtained to the editorial query "Is reconsideration possible?" prefixed to the two letters on the above subject which appeared on page 406. No hint of this possibility being given in the pamphlet containing the plans of the proposed hall circulated among the members of the Royal Horticultural Society, the inference to be drawn is that the decision of the council is final. That the plans do not meet with general approval is evident. Your leading article of the 22nd ult. voiced what I venture to think is a widely-spread feeling of disappointment. A leader in one of your most influential contemporaries of the horticultural press has contained a reference to "the mean appearance of the exterior," and has pointed out the desirability of "simplicity of design, harmony, and beauty of proportion," while numerous letters of protest have been published in the columns of other gardening papers. A country member, resident at a distance from London, of necessity lacks the opportunities that occur to those living in the metropolis of frequent meetings with other members and of thereby ascertaining their views, but those whom I have met or have been in correspondence with are, almost without exception, dissatisfied with the appearance of the proposed building.

There is, I am persuaded, no wish on the part of members that money should be spent in ambitious and costly ornamentation, but there is, I think, a desire, as there rightly should be, that the building to be erected may by its simple dignity of design stand as a worthy memento for generations yet unborn of the society that is recognised by the world as representing all that is best in British horticulture. It is affirmed by some who are well qualified to express an opinion that such a building might be erected for practically the same expenditure as that requisite if the present plans are adhered to. Most members will, I imagine, coincide with the views of "A Fellow of the R.H.S.," published in your issue of the 13th inst., that it would have been advisable to have thrown the design for the hall open to public competition. If this is now done, presuming that the council are not absolutely committed to the design submitted to the members, it would doubtless, as your correspondent suggests, mean a certain outlay before a decision was arrived at, but it might well prove cheaper in the long run.

Members would be inclined to subscribe far more freely to the hall fund if the design were one that earned their commendation than if



it were one they disapproved of, and from the list of subscribers published in the pamphlet containing the plans of the proposed hall there are still over 5,600 members who have yet to make up their minds as to the extent of their donations. That all may eventually subscribe something to the hall fund, whatever the council's final decision may be, is my earnest hope, but there is no doubt in my mind that the augmentation or lessening of the donations will largely depend upon the design.

The matter of internal arrangements and accommodation, on which subject there has already been a certain amount of correspondence, I leave to those who are most closely interested in it. I have penned this letter not in any cavilling spirit, but with the sole desire, as a member of the Royal Horticultural Society, that the centenary of that body may be marked by the erection of a hall that Englishmen may be proud of and that foreigners may view with respect. That the present design fails to fulfil these conditions may beside the writer are convinced.

S. W. FITZHERBERT.

## NOTES OF THE WEEK.

**Royal Horticultural Society.**—The first meeting of the committees of the above society in 1903 will be held as usual in the Drill Hall, Buckingham Gate, Westminster, on Tuesday, January 13. An election of new Fellows will take place at three o'clock. To prevent misunderstanding it may be mentioned that the committees of 1902 do not vacate office until the date of the annual meeting, 1903, and, in like manner, all Fellows' tickets of 1902 are available until the end of January, 1903. At a general meeting held on Tuesday, the 9th inst., fifty-one new Fellows were elected, making a total of 1,140 elected since the beginning of the present year.

**Lindebergia grandiflora at Kew.** In several of the houses at Kew this plant has been flowering since early October, and now in December there are still many flowers and buds. This long flowering period, together with the fact that the flowers are borne throughout the duldest months of the year, should commend it to all those who have to keep a conservatory gay during winter. It is said to be common about the foothills of the Himalaya from Simla to Bhotan at an elevation of from 2,000 feet to 6,000 feet, and it is also found in Pegu and further east. It is a subscandent herbaceous herb, reminding one of a *Salvia* when not in bloom. The flowers are yellow, and in shape like those of the common Musk, but are much larger, being about three-quarters of an inch in length and half an inch across the mouth. It can be grown in much the same way as *Salvia splendens*, and is very serviceable in 6-inch pots for winter flowering from cuttings rooted in heat in spring.—W. DALLINORE.

**Vinca acutiloba.**—This is a perfect mass of bloom now; in fact, it is never out of flower, and is a capital plant for running up through the foliage of Irish Yews, where its pretty white flowers are most effective. *V. elegantissima variegata* has the same striking appearance running through Golden Yews, both spreading and upright varieties.—W. BAYLOR HARTLAND, *Ardfarn, Cork*.

**Sutton's New Year Savoy** is very valuable as a winter vegetable, and is certainly well named, as with us in the North (Northumberland) it remained good till the spring, and was of great value on that account. It is one of our best and latest winter vegetables. The Savoy is more frequently grown for early autumn supplies, and grown thus it is not as useful, as at that season there is a wealth of green produce. I am aware that some kinds are none too hardy, but on that account I think this variety should find a place, as it has not so far been injured by severe weather. This variety has a short leg or stem, and being

close to the soil is not so much exposed to the wind. Another point often overlooked in the case of winter Savoys is that it is not desirable to sow seed in spring too early, as frequently the plants thus sown are left too long in the seed-bed. I would advise early May sowings and early planting for late winter supplies. Grown thus, the plants turn in during the late autumn and keep sound till spring. The flavour of the Savoy from now till March is much milder than in early autumn, and this is a strong point to be considered in vegetable culture.—G. WYTHES.

**Apple Norfolk Beauty.**—When last year Mr. W. Allan, of Gunton Park, exhibited fruits of his fine new Apple *Norfolk Beauty*, the date of the meeting of the fruit committee at the Drill Hall was October 15. The variety then obtained an award of merit. It was then stated that the fruits keep longer than Warner's King, one of its parents, that fine and far too much neglected variety and good keeper Waltham Abbey Seedling being the other. This season, to show that the Apple is a good keeper, Mr. Allan sent up a bushel of fine fruit on the 9th inst., just eight weeks later, and the quality of the flesh showed that the fruits would be good for a month longer. Such fairly enduring quality makes this fine Apple a most useful addition to our stock of winter cooking Apples, and the flesh of the fruits when baked is delicious indeed, nothing could be pleasanter. Not a few of these fruits have that russetty coating on their skins found on Waltham Abbey Seedling. In the Royal Horticultural Society's Journal of April last are portraits of the variety, one showing fairly conical fruits, the other flatter, like Warner's King. The semi-conical form generally characterised the fruits recently shown. The award of a first-class certificate was unanimous.—A. D.

**Two good Chrysanthemums for the garden.**—Most lovers of these will agree with me that some varieties are better for this purpose than others. It is practically useless to attempt to grow the large Japanese kinds in the open late, except in a few very favoured positions or in warm localities. But this is not so with the two kinds I am about to name. The first is *Mary Anderson*. This is considered the best single white variety. The flowers are not as large as some, but this does not interfere with their decorative value. It should be grown by everyone who has a garden, both under glass and in the open. We have grown them thus for many years, and for the open garden at the foot of a warm wall it is excellent. Grown in this way we cut this year a quantity of flowers with long stems through November and till severe frost in early December. The autumn being so mild it was not unusual to see *Chrysanthemums*, *Salvias*, *Clematises*, *Dahlias*, &c., in bloom at the same time. *Julia Lagravery* has been quite as beautiful as the variety *Mary Anderson*. Though a very old kind, I can remember it forty years ago being grown in pots with *Cedo Nulli*, *Christine*, &c. Few at the present time can equal it in the open garden. Its best and brightest colour is seen in the open. Few things are handsomer at the foot of a light-coloured stone wall during the last two months in the year. For years I grew it in a big mass on a border, and protected it with some lights, removing them by day. In this way splendid material was obtained for cutting at a very small cost. Should anyone be induced to try these two in the open, and need a third one, then try *Source d'Or*, still a grand bronze. These three grown together are excellent.—J. CROOK.

**Parrotia persica.**—I can testify to the perfect hardiness of this plant, having planted a few some twenty-five years ago. I was not particular as to soil or situation, but had them located next to *Phellodendron amurense* to get a bit of bright colouring; it stood the winter of 1879-1880, when we had on several occasions temperatures of 9° Fahr., and the soil frozen to 3 feet, and one of them is now a good tree, 6 metres to 7 metres high. The colouring also much depends on changeable weather, alternate sunshine and rain.—MAX LEICHTLIN, *Baden-Baden*.

I was much interested in Mr. Burrell's account

or note of this lovely scarlet and gold-tinted tree or shrub. I have four splendid specimens in conspicuous positions, where the sun shines on them the entire day. And this autumn, though not so rich in colour as usual, they were noticed by many visitors. I have scarcely ever noticed it in nursery lists. The specimens referred to here are 6 feet to 8 feet high. Some of them are layered for stock. It is a glorious bush in September and October, and the effect is much improved by running *Vinca elegantissima variegata* with bronze or black leaved Ivy through its branches.—W. BAYLOR HARTLAND, *Ardfarn, Cork*.

## THE FLOWER GARDEN.

### POLYGONUMS BY WATERSIDE.

A PRETTY way of planting the well-known *P. sachalinense* is shown in the accompanying illustration, *i.e.*, in a simple spreading group, with the bold handsome leaves and stems reflected in the clear water of the stream. The plants were photographed when in flower, and at that time the *Polygonum* is at its best, the small tassel-like creamy blooms hanging, so to say, in abundance from the wiry stems. *P. sachalinense* is bigger altogether than *P. cuspidatum*, which I regard as a troublesome but beautiful weed. It springs up everywhere, even in a gravel path. The compactum variety is less unruly, but is without the free grace of the species. VIATOR.

### TROPÆOLUM SPECIOSUM.

I SHOULD most strongly advise "Sproughton Hoe" to purchase well-established roots of this creeper in pots and to plant them out about the middle of March. Though no mention is made as to the nature of the soil in which it is proposed to plant, it may prove helpful to your correspondent if I give my own method of treatment on the light sandy soil of this garden. In order to ensure success a position should be chosen where the soil is always loose and moist and the atmosphere cool, and where the direct rays of the sun cannot fall upon the plant. This latter point is of the greatest importance. Many years ago we obtained some plants from Kelso, planting some of them against a north wall sheltered by a Yew. Numerous cases of failure with this creeper have come under my notice, and in one or two instances I found that the roots had been placed either in a soil that baked quite hard or else in a badly drained position where the soil had become sour. In my own case the soil consisted solely of very poor sand and gravel, and in preparing the ground only the top spit was retained, the remainder being taken away to the depth of 3 feet.

I then nixed the soil which was left with about four parts of fairly light loam, two of leaf-mould, one of peat, and one of wood ashes. After the plants had got well established I gave them several applications of weak liquid manure during the summer with most beneficial results, and this practice I have since continued. Each succeeding year the plants gain in strength and beauty, and now occupy a large area of wall which we have covered with wire netting for them to cling to. I have never had occasion to sow the seeds, of which we have a crop every year; but I notice that the birds have done this for us, as it has made its appearance in the vegetable garden, and, worst of all, in the rock garden, where its presence was certainly not desired. In planting pots of established roots care should be taken not to plant them too close to one another as they spread very quickly. It is certainly a curious plant to manage, as even when given good soil and a suitable position it is not by any means certain to establish itself. When it does get a start the shoots seem to come up in all sorts of places,



IF "Sproughton Hoe" has to deal with a hot, dry soil, where *Tropeolum speciosum* does not "do" well, he will find the following a sure way to succeed. This *Tropeolum* is propagated by tubers and a healthy plant produces a great number. They are not unlike *Alstroemeria* roots. If small, twelve can be bought for 1s., well established roots being about 6s. for twelve. Wrap the tuber in living sphagnum moss, then pot it in a mixture of two-thirds sandy peat and one-third leaf-mould in pots from 4 inches to 6 inches across. It is not too late now, though late October is better. Keep in a cold frame till spring, then start them with sun-heat by placing under a south wall and keeping them moist. When the growths are a few inches high plant in a good pit of sandy peat, leaf-mould, and firm loam, but do not disturb the ball. They look best among Roses or small-leaved wall shrubs. I have them growing on a north-east wall. Some

A. BAYLDON.

CONVICT LABOUR.

"At the present moment the verdict of all the farmers who have had the service is decidedly in its favour. The men are proving themselves teachable, good - tempered, and orderly, and are fully aware of the personal



POLYGONUM SACHALINENSE BY WATERSIDE.

ARTHUR R. GOODWIN.

M. A. P.

In answer to your correspondent "Sprouton Hoe" in THE GARDEN of the 13th inst., there is no difficulty whatever in propagating *Tropaeolum speciosum*, the principal point being in some districts to induce it to grow, while in others it gives no trouble whatever. It does not produce bulbs, but forms a great quantity of thickened underground stems, the stoutest of which is not very much thicker than an ordinary lead pencil. If an established mass is dug up these underground stems will be found from the size just mentioned

small tubers so treated last autumn flowered well this summer, though I must say they did not do so well as established plants put in at the same time; those made 10 feet growths. The only trouble with this plant is to get it to begin to grow. After the first year there is no trouble. My newly planted ones fruited well, though it was not a good season this year. There is no need to buy Palm seed. When the next box of Golden Dates comes to table keep the stones (seeds). We have a lot of two year and three year old Palms from such seeds. Make earth as it would be for a Vine border, loam and old cow manure; half fill one of the cast iron troughs that are used to give moisture to a hothouse. They are some 15 inches long, with concave bottoms, to fit on to one of the hot-water pipes. Place this on the hottest pipe, adding warm water till it is wet mud, in which plant the Palm seeds, keeping the soil quite wet all the time. They only take a few weeks to start, though some may be much longer. Pot into usual Palm compost, but I fear that "Sproughton Hoe" will be very disappointed at the result of his venture if he wants an ornamental yearling Palm, as the two or three leaves are only like grass. Later on comes a leaf with two divisions, decidedly not "a thing of



advantage which they are gaining by being told off for labour in field and vineyard, in place of the monotonous and far more exhaustive toil of the Breakwater quarry. The proof of this lies in the fact that in no one instance has there been a case of desertion or attempted desertion from any of the gangs located on private farms. The only cases on record are those of two or three new arrivals deserting from the Government farm itself, before they had got to understand the motives which prevented the older hands from evasion.

"There is more involved in this experiment than appears upon the surface. The reflective politician, whose aim is the improvement of administrative method rather than the ins-and-outs of party, has ever found the hardness of the task of converting the population of the gaols into law-abiding, wage-earning subjects. It is not contended that the Constantia experience in the Government vineyards has been upon a large scale, or that its conditions are applicable everywhere; still it is undeniable that native pastoral loafers to the number of nearly 300 are being converted into good, useful farm-labourers; and the unexpected part of it is that many of these do not return to their original pastoral nomad life, but actually hire themselves out to farmers of their own districts on the strength of the knowledge and deftness they have acquired. They evince some little pride in what they have learned, and even take offence if set down as 'raw Kaffirs.' 'Nou is ons volk, en kan gelt verdien.' This would seem exactly the spirit to encourage, and it will be a new element for good, and a makeweight upon the reformatory side of prison discipline.

"Independent of the benevolent philanthropic side of this interesting matter, there is the inevitable monetary side, and the conditions of cost, one is happy to say, work out all in favour of the extension of the system wherever local conditions prevail.

"The farmer who receives the convict service gladly pays all expenses, so much towards the pay of the constable in charge, and provides the necessary approved housing. Consequently the Convict Department has a distinct economic interest in forwarding the movement, besides the consciousness that they are at the same time providing a remedy for the worst difficulty the farmer has to contend against, and doing something to bridge over the gulf between the irresponsible native pastoral mode of life and the next higher agricultural stage."

Since the year in which the preceding was written (1895) convicts are employed all about the colony. Besides the Government Vine farm at Groot Constantia and the Forests at Tokai, many farmers are employing them, having about ten men on the average a piece. I asked Mr. Pillans as to the statistics of the number that reverted to their old ways. His reply was he had none, as all had been reclaimed. After the time expires they always hire themselves out.

I here add an extract from the *Cape Times* of March 10, 1902, which may be interesting to those who wish to know something of this excellent system.

#### AGRICULTURE AND LABOUR.

With regard to this subject Mr. Eustace Pillans, of the Government Agricultural Department, calls attention in his Reports of 1899-1900 to the common prejudices, with their resulting *vis inertiae* against manual labour by "white" people. It is also urged upon him by many that the conditions obtaining in Cape Colony are so different from those in England that it is useless to make any

changes towards supposed improvements, when suggested by the Government Department, until, in the course of years, success and a business profit can be proved to come of it. Such observations strike one as on a par with those maintained by parents who would forbid a boy to enter the water until he could swim!

On the other hand, Mr. Pillans is of opinion that practically there is very little difference indeed between many of the most important conditions of the agricultural industry in South Africa and those which prevail elsewhere. Just as English labourers persist now in going to the towns and leaving the farms, so do they in South Africa go to Johannesburg for the diamond and gold industries, and crowd into the coast ports.

How to check this wastage and establish a thriving rural population at the Cape is the great question of the day. A primary difficulty in Cape Colony is that there are no Crown lands to dispose of to intended agricultural immigrants. All land is under proprietors, and they cannot be bought out. The crux, therefore, is to dot this colony all over with an industrious well-to-do population of small farmers.

Mr. Pillans has also sound remarks to make as to the supplying a would-be settler with information. He says that the Government must establish an active business-like emigration agency for the Cape personally familiar with every detail. At present the London Agency is limited to ordinary business and has little to do with the requirements of emigrants. This has been done most admirably by the colonies of Australia, New Zealand, and Canada.

"It were a pity, indeed," he observes, "if the Cape could not follow their example and find the very best possible man to do her bidding and crown her wishes in the matter by successful performance."

But there is another question, and that is how to reorganise the labour market? What is wanted is new blood in the cultivating classes. In the first place, as stated, colonial-born youths drift away into the towns. On the other hand, the Cape Government has established schools of agriculture, as at Elsenburgh, but the number that attend is much smaller than might do so.

"We have, as a people, to get rid of the idea that the average country-bred youth is 'too good' for the land, that he must look out for a 'profession' or he will sink in the social scale." It is the unfortunate but mistaken public opinion which prevails, that labour is derogatory for a white man, and that it is beneath him to [literally] put his hand to the plough, and so, as it were, compete with the coloured races.

That the reader may understand something of the complicated state of the labour market, I here subjoin a letter to the *Cape Times* in reply to one in which it was suggested that Chinese should be allowed to compete with the natives. It is as well for an intending emigrant to know beforehand something of this question, for numerous enquiries are being constantly made, indeed almost daily, of Mr. Pillans, at the Agricultural Department of the Cape Government, especially as to the facilities offered to young men who wish to farm in this colony. It is too soon to speak of what openings there may be in the Orange River Colony and in the Transvaal.

Now the first and most essential advice to be given is that, however well trained he may be in English farming, he must pocket his conceit and be willing to learn what agriculture is at the Cape. Then his former experience

will, doubtless, greatly assist him and prove suggestive in improving methods of culture as carried on in the Cape Colony.

It must be remembered, as already stated, that there is *no land* at the disposal of the Cape Government as in newly-acquired countries; but many farmers have already and others are willing to receive young men to work on their farms on various advantageous terms, provided they prove themselves capable men. In some cases they give their labour for a certain time in return for board and lodging, or they receive a piece of land to cultivate or on which to raise stock for their own profit, &c.

Another important item is that the young man must *set his face against the popular prejudice about working with his own hands*. As a practical result some hundred young men are now at work on farms and doing well.

G. HENSLOW.

#### DIERAMA (SPARAXIS) PULCHERRIMUM.

THE Dieramas, a small tribe of remarkably graceful Irids from South Africa, will interest everyone who has a warm dry border in which to grow them. The old name, Sparaxis, is still in general use, but owing to the marked disparity between Sparaxis proper and Dierama in form, habit, hardihood, and garden value, it is necessary to recognise the tall, arching, bell-flowered plants as Dieramas and the dwarf starry-flowered plants as Sparaxis proper.

There is only one species recognised by the majority of botanists, *D. pulcherrimum*, a tall-growing plant, some 4 feet high, with very tough, yet slender and arching, grass-like leaves, and still taller racemes of delicate pendulous flowers, which sway and tremble with every breath of wind. The colour in the accepted type is purplish crimson, the flowers measuring  $1\frac{1}{2}$  inches to 2 inches in length and 1 inch in span, averaging from ten to twenty in each raceme. The bulb, which resembles that of *Gladiolus*, is covered with a thick matted tunic, and the roots are thick and evidently capable of resisting great drought, a character revealed in all parts of the plant. The variety album, a lovely white-flowered form, is the rarest and choicest of the group. Its flowers are not a pure white, the claw-like petal lips and the base of the flowers are rose-tinted.

PENDULUM.—A paler rosy purple form, and does not differ very much from the type, though often called a distinct species. Its leaves are more rigid, the spikes shorter, and the pedicels are a little longer than in typical *pulcherrimum*, whilst the flowers are more closely arranged on the pedicels, the weight of which gives the inflorescence a more pendulous habit than that of the type.

ATROPURPUREUM, another good variety, has dark purple and more widely distended flowers, but it is not so beautiful as the lighter coloured forms. Another variety, of which I have only seen a few flowering examples, is coloured a pale flesh-pink, with rosy tips and base, a really delightful plant, but very scarce and difficult to obtain. It has no distinctive name so far as I am aware, and is probably a chance seedling.

CULTIVATION.—Their cultivation is a simple matter. They may be planted in the open in a light warm soil without screen or protection; but in wet clay soils, in the colder parts of the North and the Midlands, the shelter of a wall is necessary, primarily to ripen their bulbs well, so they do not start into growth too early; and, secondly, to give shelter to the young growths, which often pierce the ground before they can make headway. Seedling plants are easy to raise in light soils, and mature bulbs increase fast when well established. One needs a clump of ten to twenty bulbs to see the plants at their best. The best clumps I have seen were growing in deep loam overlying limestone.

G. B. MALLETT.



## CHRISTMAS FRUITS.

(Continued from page 424.)

### THE ALMOND.

THOUGH belonging to the Nut tribe rather than the fruit, being the seed of a closely allied species of *Prunus* (*P. Amygdalus*), the Almond may be referred to here as an addition to the Christmas dessert, as it is nearly always closely associated with Muscatels. The tree needs no description, as it is such a favourite in our gardens and shrubberies on account of its early flowers, these being followed in some favoured localities by the fruits perfecting their seeds, which are the Almonds of commerce. Two distinct varieties of Almonds are known in trade—the sweet and the bitter; the former is the dessert Almond, and is also largely used in confectionery. The finest quality is known as Jordan, and comes from Malaga in Spain. This name is supposed to have been derived from *jardin* or garden, referring to its produce by cultivation as no Almonds come from the country of the Jordan.

### BITTER ALMONDS

come from Mogador and Barbary. Both kinds yield a large proportion of oil, but the "essential oil of bitter Almonds" is obtained from the bitter variety, and is poisonous, from the presence of prussic acid. An essence prepared from it is much used in confectionery and perfumery. The quality of Almonds in this year's market is said to be good though the crops have been small.

Oranges, Lemons, Kumquats, and the various other fruits produced by species and varieties of the genus *Citrus* we need only refer to, as they are in some form or another always with us, though more so at this season than at any other. The developments of

### THE ORANGE TRADE

by extended culture, both in old and new countries, the extremely prolific character of the plants in fruit bearing, and many other interesting facts come to our minds as our eyes rest on the golden fruits in the shops at the present time. Moreover, if we have botanical inclinations we can let our minds wander amongst genera other than *Citrus* of the same tribe *Aurantia* and the same natural order *Rutaceæ* to discover many other interesting fruits unknown to British trade.

It is a long run from the *Rutaceæ* to the *Urticaceæ*, a large group of plants of varied character, ranging from the common Elm down to the Stinging Nettle, but it is in one section of this order, namely, the *Moreæ*, that we find

### THE FIG (*FICUS CARICA*),

which, though a native of Syria, Persia, Asia Minor, and perhaps South-Eastern Europe and Northern Africa, has long been grown in the regions of the Mediterranean, as well as in warm and sheltered situations in the South of England, where it ripens its so-called fruits, which, as most people are now aware, are not really fruits, but a hollow fleshy receptacle, containing the flowers inside. It is not until this receptacle has become fully ripe, at which period the viscid juice is changed into sugar, that the so-called fruit is edible. In Smyrna and other Fig-growing countries the fruits are either allowed to ripen on the trees or are gathered and dried in the sun. Formerly they were packed in circular boxes or "drums," but most of the Figs—except the poorest qualities, which are sometimes packed in bags—now come in neatly-made oblong boxes of varying sizes and weights. The Fig is a good wholesome article of food, having slight aperient properties, and though it is generally seen as a dessert fruit at Christmas, at other seasons of the year there seems to be but little demand for it.

The foregoing are a selected few of the principal fruits prominently before us at this season of the year. They represent only four natural orders, all of which belong to the dicotyledonous group; but there is still another fruit which claims attention, not only because it is considered a necessary dessert fruit at Christmas, but also by reason of its historical associations. I allude to

### THE DATE,

which, as every one knows, is the fruit of the Palm (*Phoenix dactylifera*), a tree attaining a height of 100 feet to 120 feet, ranging from India, through Western Asia, Egypt, and North Africa. In early times the Date Palm was abundant in Palestine, and formed then, as it does now, one of the most important food-producing plants of the people. It is generally supposed to be the Palm tree referred to in the Bible. From Egyptian and Assyrian remains it seems evident that the Date tree was known and valued by the ancient peoples

of those nations, and at the present time in Egypt and Arabia the fruits are very important as an article of food, both for human consumption as well as for cattle. A very large number of varieties of the Date are known, some of which produce fruits formed of little else but the stone, covered with a thin skin, and therefore quite unfit for human consumption. The varieties which yield the fine plump fleshy Dates of our shops are, of course, the most esteemed. They contain about half their weight of sugar. These fruits, as most people know, are borne in large spadices or clusters, averaging about 20lb. in weight. The market supplies this year seem to be both abundant and good, Persian Dates being quoted as low as 1½d. per lb. A large quantity of the English supply comes from the countries on the African coast of the Mediterranean.

The Date Palm has been long introduced into the South of Europe, where, although it grows freely, it does not ripen its fruit, except under the most favourable conditions, as in the South of Spain. The leaves, however, are tied up and blanched, and form a large article of trade for decorative purposes, especially for use in the Anglican and Roman Church on Palm Sunday.

JOHN R. JACKSON.

Claremont, Lympstone, South Devon.

## THE ROCK GARDEN.

### ROCK GARDEN-MAKING.

#### IV.—PRACTICAL HINTS ON ROCK BUILDING WITH STONES OF THE UNSTRATIFIED CLASS.

IN the last chapter on rock gardening (see THE GARDEN of November 29, pages 378 and 379) I discussed the question of which stone to use, and explained the great difference between igneous rocks and sedimentary rocks. I will now proceed to deal with the first of these two classes in a more practical way, with suggestions how to use the igneous rocks in the construction of rock gardens, and by an actual illustration of my own method of dealing with such rocks, giving a series of photographs all taken during the same week, but during different stages of the work.

It has already been stated that igneous rocks, like granite, are not found in successive layers or strata, but occur naturally in the most varying forms. Sometimes they form dense masses, at other times they are loosely scattered in large or small groups, or even as single boulders loose on the ground or cropping up from the surface. In some instances they bear evidence of secondary upheavals and appear tumbled over each other in the wildest disorder, thus forming large or small caves or deep fissures. Where single stones crop up from the surface it will almost invariably be noticed that the green sward around such a stone appears raised, even if the ground generally should be more or less flat. This is evidence of upheaval from below, and on examination we generally find that such apparently single stones are really only the top of huge masses of rock below the surface. In imitating Nature, when building rocks with stones of the igneous type, it should therefore be our aim to group these rocks as irregularly as possible, and where we put single stones we should raise the ground around them so as to give greater probability to the idea of natural rock having pierced the surface in such a way that only the top is visible, while the bulk is hidden below ground. Such imitations of natural rock are not obtrusive but suggestive, and are often more natural and therefore more pleasing in their effect than artificial structures of a much bolder kind.



I.—A WEEDY BANK SITE FOR A SMALL ROCK GARDEN (FIRST DAY).



When discussing the subject of sites for a rock garden in *THE GARDEN* of October 25, pages 286 and 287, I gave two illustrations showing the site of a rock garden, and the same site twelve months later when the rocks had been completed. This rock garden was on a large scale, and in its construction I used not less than one thousand tons of stone. There are only few gardens, of course, which would be suitable for a rock garden on such a scale, but by way of contrast I will now illustrate the actual construction of a rock garden within one week only.

#### A ROCK GARDEN IN A WEEK.

Being engaged in the construction of a small rock garden in North Cornwall a little more than a month ago I embraced that opportunity of photographing the work during its progress, not with a view of showing my own work as a pattern, but because an example from actual practical work conveys more than many pages of essays and theories. The accompanying four illustrations were prepared from those photographs. There was an interval of only five days between taking the first and the last photograph, and the transformation from the weedy bank represented in the first picture to the finished work shown in the fourth picture was therefore really effected in a trifle less than a week. The material used was about twenty-five tons of granite, gathered on a moor, thus having an ancient appearance and being partly covered with moss and lichen. Picture No. 2 shows the preparatory work. Weeds on the bank were cleared off and everything made irregular by excavating about ten or twelve loads of soil in the middle. The reason for this is obvious. Granite cannot make an effective rock garden unless it is arranged quite irregularly. The excavation shown in the picture is really larger than required, so that where the stones are in position a sufficient quantity of soil might be filled in behind the stones to allow small shrubs, alpine plants, &c., to flourish.

Illustration No. 3 shows the principal stones

placed in position. It will be observed that they are irregularly grouped, rather massive in the centre, and more scattered towards the end of the little rock garden. Due attention has been paid to the fact that boldness is increased or emphasised by having a projection or promontory immediately adjoining a recess. The recess in the picture appears deeper in reality than is shown by the illustration, which gives the ground foreshortened and apparently flatter than it really is. The bottom of this recess has been fitted with stepping-stones and filled with peat. It is intended for a bog bed for hardy *Cypripediums*, *Houstonia*, &c.

The fourth picture shows the completed work. On comparing it with the third picture it will be found that only a few stones have been added. Some of the small stones were driven in above and below such plants as were put in sideways. Where two or more large stones join each other the hollow space between them is filled with soil, and the crevices on the outside are filled with plants which in less than six months will obliterate all traces of a joint and the work will then look like solid rock. To some extent, it will be observed, this has already been obtained, and picture No. 4 looks more natural than picture No. 3, but after a single season's growth the effect will be far more striking.

*Elmside, Exeter.*

F. W. MEYER.

#### NOTES FROM SWANSWICK.

##### MISTAKES IN A RECENT GARDENING BOOK FOR CHILDREN.

In some of the books about gardening that appear in such steady streams there are many mistakes in names which grate horribly on the ear of even a moderately practised gardener averagely accurate. A certain recent book addressed to children, but written in a grown-up way which suggests an appeal to their elders is especially and astonishingly defective in this respect. One might put up with slip-

shod writing and terribly ungrammatical sentences, but it is rather too bad of any author to "set up" to write a gardening book in a tone of authority, and misspell one plant name in ten! If people who really do not know very much about their subject, otherwise than in theory, *must* deliver their dicta, the employment of a proof-reader who is a practical gardener and owns to a little Latin might be advantageously made compulsory. Of course scholars sniff at gardeners' Latin, and still more at gardeners' Greek, and more especially when the two are organically allied, but such as our garden nomenclature is, it has its own and quite arbitrary orthography, and must be taken or—in these cases preferably—left. "Printer's errors" occur, of course, and are annoying enough, and publishers are not always grateful to their authors for lavishly corrected proofs, but the author cannot shift all his duty to his public on other shoulders and go blameless. I lost sympathy with the author of the interesting

#### "TUSCAN GARDEN"

when she recorded the evasion of her garden on a certain day when some particularly interesting *Chrysanthemum* cuttings had arrived from England, and the consequent vexation of their suffering because they had to wait—whether three days or longer is not quite clear—to be potted. Such a task is so easy and so pleasant she might surely have done it herself without any waiting at all; a *real* gardener would, I think, have flown to it. However, carping aside, the "Tuscan Garden" is recalled to me because we have been planting some *Prunus Pissardi*, and in this book there is an interesting note about it which altered the destiny of one of the trees. First planted as a shrubby background, to set off *Prunus triloba* in front, one of the batch has been promoted to a sunny position in the best part of the fruit garden, because the author of the Italian memorabilia (this is late or Dog Latin, and, therefore, a more appropriate word than the classically correct "memorabilia" for use on garden occasion) says that its fruit is very delicious, and it is, therefore, being extensively grown in Tuscany. Possibly it is known here, but, like the writer, I have only heard of the tree as an ornament, and should like information on this point. A belated argument against too much "massing" which has just occurred to me is suggested by our difficulties in deciding where the "masses" we have—in some cases—dutifully planned are to go. For example, in planting *Anemone fulgens* who can say whether it will like the site chosen for it? It is, of course, a lovely thing made much more lovely by being planted in quantity, but as it is quite impossible to say that it will succeed in any particular situation, and as it is hardly cheap enough for very extended experiment, and ground is very much too precious for the same, are we not morally compelled to dot it about in trial patches? Eventually, no doubt, all these can be conglomerated, but in the meanwhile separated group planting seems inevitable. Even in gardens whose every foot of soil is known in all its characteristics to the owner some quite trifling change of position may make all the difference to a plant: how much more is this the case where the soil differings are as yet an unconned book to a new comer.

Among willing plants *Arabis alpina* fl.-pl. certainly takes a high place. It seems not only able but eager to grow anywhere and under any conditions. Some very small bits, broken off by accident, and thrust loosely into the ground in November, have, I see, rooted and spread to thrifty little plants already,



2.—THE SITE CLEARED AND PREPARED FOR ROCK BUILDING (SECOND DAY).



while the legitimately planted clumps run rampantly in all directions. It does not seem to be in accordance with the usual order of events that the very superior scion of a race should so far outstrip the original type in vigour as well as in beauty.

A correspondent of THE GARDEN asks where Palm seeds can be procured, and her question answers itself in the same issue, for the desired seeds are therein advertised to be sold by auction. Vast is the number of Palms themselves that auctioneers yearly offer, and presumably sell at prices remunerative to the growers. Since the average non-gardening buyer of room plants must take most of these over from retail florists it appears that a terrible slaughter of the innocents must be always proceeding. M. L. W.

## CHRYSANTHEMUMS.

### CHANGES IN THE METHODS OF EXHIBITING LARGE BLOOMS.

REFERENCE is frequently made by contributors to THE GARDEN of the need for altering the present system of exhibiting large exhibition blooms. A change of methods in showing large blooms has, however, been carried out in some degree, unconsciously, perhaps, to many in several instances, and keen observers will not have attended the National Chrysanthemum Society's meetings and exhibitions of some of the leading provincial Chrysanthemum societies without having seen evidence of the desire for a more satisfactory way of exhibiting the larger blooms. Those who have the best interests of the flower at heart know well how monotonous a continuous array of blooms set up on show-boards becomes to a casual visitor.

The National Chrysanthemum Society has for some years encouraged a change from orthodox ways. Classes in which some of the best blooms in the show are displayed in vases are increasing in number, and appear to have quite eclipsed what were at one time regarded as the great events to win, notably the forty-eight Japanese, and the twenty-four Japanese, too. The great vase class at the Royal Aquarium show, which has always been set out in the cooler quarters of St. Stephen's Hall, has, since its institution, always proved a success. There are also several other classes in which the large blooms, usually to the number of six, have to be set up in a single vase, and arranged in such a way that they face all round alike. In the earlier days the six white or six yellow Japanese blooms, as the case may be, were arranged on the ordinary show-boards, and the greatest difficulty was experienced in displaying them without the petals of one bloom interlacing with those of its neighbour on the same board. What is the case now? The individual beauty of each bloom is seen, and the arrangement is generally good.

There were also at the National Chrysanthemum Society's November exhibition classes for incurved blooms, to be set up in vases, and a very welcome change they were to the exhibits on show-boards. The incurved blooms never looked better, and their splendid depth was better seen than when "cupped up" on the show-boards. The Anemones in some cases were also exhibited in the same way, but the small number of exhibits was regrettable. For some reason the money prizes in the classes for these quaint flowers are not liberal. This may possibly account for the poorness of the display. There is room for improvement in this respect in all classes, and those who desire to make their exhibitions even more popular than many of them are to-day, and who also wish to revive the flagging interest of some of the less fortunate ones, should give this matter careful attention. No one type should receive too large a share of the prize money. Although singles, both large and small



3.—THE PRINCIPAL STONES PLACED IN POSITION (THIRD AND FOURTH DAY).

flowered, are displayed in dwarf earthenware vases—and this is a distinct advance upon the show-boards used at one time—there is room for improvement. Taller vases and a more liberal supply of flowers should be asked for. Three vases, each with twelve blooms daintily adjusted, would look immeasurably better than the six vases of six blooms in each, arranged as they are at present with mechanical regularity. Better still would it be to see three vases, arranged as a decorative exhibit, in which the exhibitor should be required to use a given number of varieties at least. This would have the effect of illustrating their decorative value.

The same remarks apply with equal force to the Pompons and Pompon Anemones. These charming flowers when partially disbudded, and free-flowering sprays requisitioned, are capable of creating an effect of which few persons are aware. The use of vases in which to display the different types of the Chrysanthemum should have the effect of completely transforming the appearance of the shows, and this would also serve to break up the long and even lines and flatness which have characterised Chrysanthemum shows since they first became popular. Each year the change would be more noticeable, as the newer introductions would give novelty to the display. The December show of the National Chrysanthemum Society as an exhibition was far more interesting than most of its kind, owing chiefly to the fact that vases of blooms largely predominated. Each vase of flowers had something in it to please, and there was nothing monotonous about them. The splendid exhibition of the Highgate Chrysanthemum Society in the unrivalled Central Hall of the Alexandra Palace, in the early days of the Chrysanthemum season, was an object-lesson of what could be done with large blooms in vases, as well as others of a decorative kind. D. B. CRANE.

### GLEANINGS FROM RECENT BOOKS.

#### NATIVE TREES AND SHRUBS IN WINTER.

RAMELING about the country in winter one becomes more and more impressed with the beauty of our native evergreen trees and shrubs. Seven names comprise them all—Yew, Holly, Scotch

Fir, Spruce, Juniper, Box, and Ivy. Even of these the Scotch and Spruce Firs (commonly so-called, though the Scotch is a Pine) are doubtful natives, though so long acclimatised that they may be classed with our own. Those who are laying out new grounds on a large scale would do well to plant these grand things in plenty; indeed, in the case of any new planting that is taken in hand, unless the owner has a good knowledge of shrubs and some taste in their choice and disposition, a planting of these alone would save him from many a regrettable mistake and from the prospect of the usual senseless jumble of mixed shrubbery that has hopelessly spoilt thousands of gardens.

No foreign shrubs can compare with or take the place of our Yews and Hollies. However large a collection of exotics may be in a well-stocked arboretum, a winter walk among them only shows that there is nothing more cheerfully handsome than our Hollies or more solemnly dignified than our Yews. On dry, sandy soils no conifer is better for England than the Scotch Fir, or for moist, loamy regions and valley bottoms none is better than the Spruce. Exception is sometimes taken to the Spruce, and when planted in other than the place it likes it is, indeed, a wretched object, as on dry and hilly grounds. But a mass of common Spruces in a cool alluvial bottom is a picture of well-being, and no one can deny their majesty on alpine hillsides. The Douglas Fir is sometimes recommended in their stead, but this beautiful and quick-growing tree must still be regarded as an experiment. There is not, as yet, a single old Douglas Fir, and there are some among our botanical experts who are yet in doubt whether, for all its young vigour, it will be a lasting tree for our country.

Then for dry uplands in light soils there is the lovely Juniper, best of all its kind (though often in nurseries foreign ones only are offered to its exclusion), and for chalky soils and loams the Box luxuriates and can be used as a small tree as well as in its usual bush form. The use of common Ivy should not be forgotten. How important it is in winter may be perceived by anyone during a country drive, when it will be seen to be the one most conspicuous living thing, adapting itself to a diversity of use that is quite extraordinary.—*Trees and Shrubs for English Gardens.*



## TREES AND SHRUBS.

## THE HOLLY AND SOME OF ITS VARIETIES.

**C**OMMON Holly is one of the most useful of our hardy evergreens, and, as THE GARDEN has pointed out on several occasions, is not planted so much as it might be. This neglect, however, is partly due to the fact that it is of slow growth, and is also a fairly expensive plant to buy, especially when it has attained any size. The Holly is a native of Britain, Europe, and the western parts of Asia. It is often found in this country growing in the middle of woods, where its dark shining foliage forms a strong contrast to the deciduous trees or Scotch Pines surrounding it; but although a native plant, and one that should be easy to deal with under cultivation, it is one of the most difficult to transplant. In raising it from seed the berries should be gathered in early winter, mixed with sand, and put in a heap covered with turf until spring. About the middle or end of April they should be sown in a prepared bed out of doors, and covered with about half an inch of fine soil. A small proportion will germinate the first year, but the main crop will not appear till the second season, and if the bed is left the third year will see a fair sprinkling of belated stragglers above ground. The work, however, with Hollies has only begun when the seedlings are above ground, as upon the attention they receive during the next three or four years their future welfare depends. The seedlings should be planted on good ground, with a fair sprinkling of manure, and be moved annually in the autumn for the next three seasons at least, when they will retain some soil about the roots and will stand two years without removal. They will then be only about 18 inches to 2 feet in height, and their growth afterwards—unless they are

permanently planted—will be nearly, or quite, as slow, so that a good Holly, 10 feet high, that will bear removal without dying is the product of many years' growth, and also means that much time and labour have been expended in transplanting it.

## SELECTION.

There are nearly a hundred named varieties of the Holly, but many of them are more curious than beautiful, while some of the others are so much alike that the numbers are greatly reduced when we come to really distinct forms. A good selection comprises the following:—

## VARIETIES WITH SILVER VARIEGATION.

*Silver Milkmaid Holly* (argentea medio picta).—This is a handsome plant when it is kept true; but unless carefully watched and the strange growths cut away it is apt to go green. The leaf is like that of the common Holly in size, shape, and spines, and the white variegation is confined to the centre leaf, the edges being of a bright shining green.

*Silver Queen Holly* (argentea regina).—This has a rounded, rather flattened, spiny leaf, with a deep border of silver, changing to creamy white in winter. The wood is purplish red, and the plant has a close and compact habit.

*Handsworth Silver Holly* (handsworthensis).—This is the best all-round silver variegated Holly, being bold and striking in colour, and of an upright and vigorous habit. The leaf resembles that of the common Holly, and the variegation is confined to a broad stripe around the edge, the centre being of a dark shining green.

## VARIETIES WITH GOLDEN VARIEGATION.

*Aurea angustifolia*.—This is an upright, quick-growing variety, with narrow spinous leaves, which are narrowly bordered with gold. It makes a handsome pyramidal plant in a comparatively short time.

*Gold Milkmaid Holly* (aurea medio-picta).—This is similar to the Silver Milkmaid, except

that the variegation is bright yellow instead of white.

*Golden Queen Holly* (aurea regina).—This is by far the brightest of the variegated Hollies, but it is, unfortunately, of slow growth, and takes many years to form a really good plant. The leaf has usually a broad margin of clear golden-yellow, but sometimes the variegation is in large splashes of colour, and occasionally whole leaves and branches will be found entirely yellow.

*Moonlight Holly* (flavescens).—This is a very handsome plant when well coloured, the leaves having a pale yellow tint exactly resembling a plant seen by moonlight. It is of good habit, and a fairly rapid grower.

*Golden King Holly* (aurea rex).—This is a comparatively new form, but one that will be popular when it becomes better known. It is a plant of bold and vigorous habit, and from present appearances will make a handsome tree. The leaves are large and broad, mostly entire, or with few spines, and have a broad edging of clear golden-yellow, with a centre of dark shining green. A distinct and good Holly.

*Waterer's Gold Holly* (watereriana).—For standards or low bushes for formal gardens this Holly cannot be beaten, as it is of a close, compact habit, and requires little attention to keep it in shape. The leaves are oval in shape, ending in a short spine. The margins are entire and broadly edged with gold.

## GREEN-LEAVED VARIETIES.

*Balearica*.—This is an upright, quick grower, with very dark green shining leaves, mostly entire, but occasionally with a few spines on the upper half of the leaf, which is also wavy in outline. It berries well in most seasons, and the bright red fruits are shown to advantage by the dark foliage and the open habit of the plant.

*Camelliaefolia* (laurifolia).—This is a Holly that is worthy of more attention than it receives, as it is a bold and striking plant, especially as a large specimen. The leaves are from 2 inches to 4 inches long, entire, or with but few spines, dark green, and shining as if varnished. The plant is a good grower, of rather thin habit in a young state, but filling out well with age.

*Hedgehog Holly* (ferox).—This probably shows as much variation from the type as any Holly. The leaves, which are rather small, have, in addition to the spines on the edges, a covering of short spines on the upper side, which character is well illustrated by the common name. It is of slow growth, and takes a considerable time to form a specimen of any size. There are two variegated forms of this, viz., var. f. argentea, with white variegation, and var. f. aurea, coloured with yellow.

*Yellow-berried Holly* (fructu luteo).—This only differs from the type in the bright yellow of its fruits and the lighter colour of the wood and leaves. It is also a more rapid and upright grower, and berries well.

*Hodginsii*.—Next to the common Holly this has probably the largest sale of any, and its popularity is well deserved, as it is handsome, of good habit, and fairly quick growth. The leaves are large and broad, armed with stout spines, and of a dark shining green. As a hedge plant it is equal to any plant grown.

*Scotch Holly* (scotica).—This is a slow growing bushy form with ovate, leathery leaves, which are wavy and spineless, and thickened along the edges. It makes a splendid bush plant of medium height.

*Wilsoni*.—This is a comparatively new plant, of vigorous habit, with large, flat,



4.—THE ROCK GARDEN PLANTED AND FINISHED (FIFTH AND SIXTH DAY). (See page 441.)



rugose leaves edged with straight spines. It makes a handsome pyramidal bush with age, and has large crimson berries.

#### WEeping HOLLIES.

*Perry's Weeping Holly* (*argentea pendula*).—This is a good pendulous form with typical leaves edged with silver. It is of slow growth, and requires time to form a really good specimen.

*Waterer's Gold Weeping Holly* (*aurea pendula*).—This resembles the former, except that the variegation is golden instead of silver and the leaves are somewhat smaller.

*Pendula*.—This is a green-leaved weeping form, and makes a handsome plant of its class when well grown. It is of fairly rapid growth and makes a good specimen with very little attention.

All the Hollies require a certain amount of attention in the way of pruning, especially when young, as they are apt to grow bushy and broad instead of going upwards. August is the best time for pruning, as a short growth is made before winter, which keeps them from looking bare.

The common Holly is best propagated from seed, and the varieties can be raised by budding or grafting, or by means of cuttings and layers. The latter is the best method, except in the case of standards, which are budded on stocks of the type during summer or early autumn. The Weeping Hollies should be worked 8 feet or 10 feet high to be effective. J. CLARK.

Bagshot, Surrey.

## ROSE GARDEN.

### ROSE FLORA.

OF the Cluster Roses, so-called from the flowers appearing in clusters or bunches, Flora is one of the sweetest;

its colour is a clear pink, and, as the illustration suggests, it blooms abundantly. It is strong in growth, and just the Rose for the corner of a pergola such as shown in the illustration. I was charmed with the article on pergolas you published a few weeks ago—I mean Miss Jekyll's contribution. I have read it with profit and pleasure. VIATOR.

[The article referred to appeared in THE GARDEN of November 8 and 15.—ED.]

### HARDINESS OF ROSES.

#### VARIETIES FOR COLD CLIMATES.

A CORRESPONDENT from Sweden wishes to know which of the good garden Roses are likely to be the hardiest. He does not say for what part of Sweden they are wanted, and his post town does not appear on ordinary maps; neither does he state his extreme winter temperature nor length of winter. We should advise him to try the following:—Rugosas and their hybrids, Scotch Briars and *R. altaica*,

Sweet Briar and Penzance hybrids, Boursaults and *R. rubrifolia*, *Rosa alba* and vars., *R. lucida* and the double kind, *R. macrantha*, *R. Andersoni*, Carmine Pillar, Leuchtstern, Eleanor Berkeley, Rubin, Psyche, Dawn, Una, Pomifera, *R. humilis* and hybrids, Moss and Provence Roses, Hybrid Chinas, such as Mme. Plantier, Vivid, &c., and the Ayrshires and other climbers derived from *R. sempervirens* and *R. arvensis*.

Perhaps some of our correspondents in the cold Midlands and the worst climates of Scotland could add to our list Roses found to be hardy in rather severe districts.



CLIMBING ROSE FLORA OVER POLE.

### WINTER PROTECTION TO ROSES.

I SUPPOSE giving to tender Tea Roses the sort of protection that you say Mr. Mawley gives his standard Teas in Herts, and which you have so forcibly, though not picturesquely, illustrated, is not only needful so far as these Roses are concerned, but is the right thing to do. But what a penalty has to be paid for the summer pleasure of having standard Teas in one's garden by making them, to ensure protection from frost, such hideous objects as are those depicted on page 410. I like Roses as well as the most enthusiastic rosarian, but I could not tolerate the existence of such depressing and ungainly things as thatched heads of standard Teas in my garden. One is tempted to ask if such form of protection be needful. Why grow standard Teas at all, at least in any open or conspicuous part of

a garden? If they are essential why not plant them in some enclosed garden kept solely for such objects, into the close recesses of which no stranger's eye could penetrate during the winter months. In the case of dwarfs all experience seems to have proved that their best protector in hard weather is soil, and such covering up as may be needful to keep the wood from injury by frost offends no one. If standard Roses must be had, and not all Rose lovers care for them, at least is it not better to grow as such good hardy Hybrid Perpetuals or other hardy varieties than tender ones like so many Teas that will not endure the sharp frosts of our winters, without being made into scarecrows, especially when following on a dull, cool summer. Of course I may be told that what does not offend the vision of such a cultured lover of Roses and of high art in horticulture as Mr. Edward Mawley should not offend mine. That may be or may not be so, but after all how many readers of THE GARDEN are there who can honestly say they would like to have in their gardens winter-thatched standard Roses?

A. DEAN.

## INDOOR GARDEN.

### GREENHOUSE ACACIAS.

MANY of the Acacias suitable for greenhouse culture are excellent indoor flowering plants, for they are easily grown, require little fire-heat, and flower profusely either planted out in borders or when growing in pots. Upwards of 400 species are known, and of these about one-fourth are in cultivation at Kew. Of these species some eight or ten are often met with in gardens, but numerous others rarely seen are quite as worthy of culture. The genus is widely distributed through Australia and parts of Asia, Africa, and America, by far the greater number and the most useful from a horticultural point of view being found in Australia. As might be expected in such a large genus a great diversity of form exists, some species making large timber trees, others low bushes not more than 1 foot or 2 feet high, with all sorts of intermediate stages. The Australian species as a rule have stems without spines, so differing from many of the species from other countries which are armed with very formidable spines, ranging from half an inch or so long in some species to the long horn-like spines of the American *A. Hindsii* and *A. spadicigera*, the latter being commonly known as the Bull's Horn

Acacia. Many of the Australian species have no true leaves, the leaves being reduced to mere scales, while the petioles are enlarged and fulfil all the functions of such; these enlarged petioles are known as phyllodes. This character must not, however, be looked for in all the Australian species, for in some cases true leaves are borne, and in others both leaves and phyllodes; the best example of the latter case is *A. melanoxylon*.

The flowers of the Australian species are of various shades of yellow, in one or two cases being almost white. They are borne either in small fluffy balls, short racemes, or large panicles, and the time of flowering is from October to May.

The uses to which Acacias can be put are many and varied. As pot plants they are decidedly ornamental and are essential to the furnishing of a conservatory in spring, while for planting out in



large houses they are indispensable. When grown in the latter way the generous treatment is productive of more growth and flowers.

The usefulness of Australian Acacias for furnishing large houses is well shown at Kew, where one of the principal features of the winter garden is made by these plants, there being many huge specimens which flower well annually. The soil most suitable for Acacias is a mixture of loam and peat into which plenty of sand has been mixed. It is essential that the drainage both for pot and border plants should be perfect, as they dislike stagnant water about the roots. After flowering the plants should be well cut back, and the house kept close and moist until young shoots appear. Repotting should then be done, and as soon as new roots are formed abundance of light and air must be given till the flowering season approaches, when a little more warmth may be given with advantage. As Acacias much dislike any disturbance at the roots, when planting out is contemplated take care to place the plants at once in the positions they are to occupy permanently.

The habit of each species suggests the method of culture to adopt. Some are seen at their best when grown as trees, others as bushes, and others again which make long scandent growths are never seen to greater advantage than when supported by a pillar. The temperature necessary for Acacias depends on the time they are wanted in flower. If they are to bloom naturally they merely require a house from which frost is excluded, but if they are wanted in flower for midwinter a minimum of 45° should be given. Pot plants will winter very well in a frame with a cool ash bottom, and are improved by being plunged outdoors in summer. Propagation is by seeds and cuttings. When seeds are to be sown they should be soaked in boiling water for a few minutes previous to sowing; this will assist germination. Cuttings of young shoots 3 inches long root readily in summer. Insects do not trouble Acacias very much, thrip being the worst enemy, and this may be kept down by fumigating.

Of the numerous cultivated species, the following are the most useful from a horticultural point of view:—

*A. acinacea*.—This is a slender and graceful plant, from 4 feet to 6 feet high, bearing small linear phyllodes three-quarters of an inch long, and numerous small round fluffy balls of yellow flowers. It flowers naturally in March.

*A. armata*.—This was introduced about a century ago, and is probably the one most commonly met with in gardens, being grown largely in some places for market. Its principal characteristics are a dense bushy habit, obliquely ovate, spiny dark green phyllodes, and good-sized round heads of fragrant golden flowers. The varieties *angustifolia* and *undulata* are worth growing, particularly the former. It is excellent when planted in a border, shoots 3 feet to 4 feet long being made annually, which early in April are wreathed with blossoms. The habit of the plant is semi-pendulous, the phyllodes long and narrow. In addition to being good border plants, all the three are excellent for pot culture.

*A. baileyana*.—This is one of the newer species, and has not been in cultivation many years. From its habit of growth it appears as if it will make a tree. It produces true leaves, which are of a lovely glaucous hue and bipinnate. It blooms when young, the flowers being in small, globose heads arranged in short racemes. The colour is golden.

*A. celastriifolia*.—Though this is not one of the strongest growers, it makes a shapely bush and flowers freely. The phyllodes are from 1½ inches to 2 inches long, and the flowers, which are pale yellow, are in short axillary racemes. It is very distinct from most species, but is considered by some a synonym of *A. myrtifolia*. The two are certainly much alike, but whilst the flowers of the former are yellow those of the latter are almost white.

*A. cultriformis*.—The curious knife-shaped glaucous phyllodes of this are quite distinct from those of other species. It was introduced from New South Wales about eighty years ago, and is fairly popular in gardens. The flowers are golden-

yellow and borne freely in round heads. Though it will grow upwards of 12 feet high, it is more often a quarter that height.

*A. dealbata*.—For a large winter garden this is excellent. To see it at its best it must be planted in good soil and have room to develop a good-sized head. It is popularly called the Silver Wattle on account of its glaucous leaves. The flowers are borne in winter and early spring. They are fragrant, yellow, and produced in small round balls, which are again arranged in large panicles. For a small house it is not suitable, as it is only when it has attained a large size that it is seen to advantage.

*A. Drummondii*.—This is a very free flowering dwarf species, bearing bipinnate leaves and lemon-coloured flowers in short, drooping racemes; it makes an excellent pot plant, and is also suitable for border culture.

*A. hastulata*.—The thin wiry stems and small three-cornered, sharp-pointed leaves stamp this as distinct from anything else. Long shoots are made annually, along which the small cream-coloured flowers are borne profusely.

*A. leprosa*.—No better subject than this can be obtained for clothing a tall pillar where the long slender branches can hang in a graceful and natural way. The whole plant is light and elegant, the phyllodes being 5 inches or 6 inches long, very narrow, and bright green. The flowers are bright yellow, and freely borne along the whole of last year's shoots in globose heads. March and April are the months in which it may be expected to flower. Though seen at its best against a pillar, it is also useful as a pot plant.

*A. lineata*.—This is very ornamental by reason of its long narrow phyllodes, which are profusely borne, and give the plant a very pretty appearance. The flowers are cream-coloured and appear throughout autumn and winter.

*A. longifolia*.—This has strong upright growths, leafy phyllodes 3 inches to 6 inches long, and a quarter of an inch to one-third of an inch wide, and numerous upright racemes 2 inches to 3 inches long of yellow flowers borne from the axils of the leaves along the whole of the previous year's growth. This species grows at least 15 feet high and quickly forms a large bush. Several varieties are known, of which *floribunda* and *magnifica* are worth growing; both are freer than the type.

*A. myrtifolia*.—In general appearance this is much like *A. celastriifolia*, but the flowers are almost white.

*A. obliqua*.—For pots this is excellent, making a shapely bush of graceful outline and flowering with great freedom. It rarely grows more than 2½ feet high; the phyllodes are small, scarcely a quarter of an inch across, and flat. The flowers are in small round heads, and borne from the leaf axils. It is also known as *A. ovata*.

*A. platyptera*.—The winged branches of this make it distinct from other species. In some places it is grown for market, but does not seem so popular as are several others. It seems to like a little more heat than most Acacias, and also more peat in the soil. At Kew a fine plant 6 feet high is growing in a border of sandy peat in the greenhouse and appears to be quite at home. The flowers are deep yellow and appear in midwinter. At Kew a plant similar in habit, but with white flowers, flowered last year.

*A. pubescens*.—This species has a tree-like habit, bipinnate leaves, and small heads of primrose-scented blossoms produced in racemes from the axils of the year old shoots. It is increased by root cuttings, and should only be severely pruned every other year.

*A. pulchella*.—Market growers have long favoured this species, and it is well known by reason of its small bipinnate leaves, globose heads of golden blossoms, and somewhat spiny shoots. At Kew it grows quite 20 feet high and flowers very freely.

*A. riceana*.—Like the preceding, this is a popular plant with market growers. It makes a lovely specimen grown either in pots or borders, the habit being pendulous and the phyllodes small. The flower heads are small and in large drooping

racemes, the colour of the flowers being cream. When planted out it should be supported by a rough post on which side branches a foot long have been left.

*A. urophylla*.—This is one of the earliest to flower, being usually at its best about Christmas. It is of elegant outline, and has pendulous branches. The phyllodes are broadly ovate, the flowers almost white, and in round heads. It flowers very freely, and deserves to become popular.

*A. verniciflua*.—Seeds of this were first sent to Kew about 1823, though it had been discovered in 1817 by Mr. Allen Cunningham. It is a small grower of elegant habit, with small phyllodes and large quantities of golden flowers. It is worth a place in any garden, being good alike as a pot or border plant.

*A. verticillata*.—Visitors to Kew during March and April have a good opportunity of judging of the value of this species, for there are several fine specimens in the Temperate house which flower magnificently every year. Branches 6 feet or 7 feet long are made annually. These are clothed with small, dark green, sharp-pointed phyllodes, which in the flowering season are almost hidden by small cylindrical racemes of fragrant yellow blossoms. Though it flowers well as a pot plant it is best seen when forming bushes 12 feet to 15 feet high and 8 feet to 10 feet through.

W. DALLIMORE.

## THE KITCHEN GARDEN GARDEN PEAS.

RECORDS of the Pea trials at Chiswick—and for the past three years they have been exceptionally extensive and good ones—make an interesting study. Still, they offer chief interest to those privileged to examine them from time to time, as members of the fruit and vegetable committee and the Royal Horticultural Society's officials do. Whilst various awards are made—and properly made, too—to some old varieties, the merits of which have in the past not received adequate notice, the growing of these enables the committee to note with fair and full comparison how far novelties or new varieties do present advance over those of preceding years. Last summer, with a very fine trial, only three first-class certificates were awarded, and these to varieties some time in commerce, viz., Daisy, Senator, and The Gladstone. All were found in first-class condition and with high-class reputations. In the preceding year (1901) the only first-class certificate awarded was to Prizewinner, then a remarkably fine cropping variety, and the preceding year only two first-class certificates were granted, these being to Edwin Beckett, a new variety, and to Alderman, the finest probably of all the tall selection. First-class certificates are awarded now only to varieties that stand out from the general body of others as being exceptionally good, and with so many assumed new varieties in the trial, it was interesting to find that the three getting these awards last year were well known established ones. That leads to the very natural assumption that raisers have in general excellence in cropping, fine pods, productiveness, and flavour nearly reached the end of their tether. Edwin Beckett was the only Pea which secured the first-class certificate whilst still an unknown variety during the past three years. Even Prizewinner so fine in 1901 was known in commerce. My selection of six medium height garden Peas hard to beat are Gradus, Senator, Peerless, Edwin Beckett, Prizewinner, and The Gladstone. If all be sown together they cover a good period of time, but no one, except for trial, would do that. A. D.

## VEGETABLES IN SEASON.

WITH the approach of severe weather choice vegetables will become scarcer. At this season those that give a distinct change will be welcomed, and as these are mostly grown with little trouble they should not be lost sight of.



## ASPARAGUS.

This vegetable is forced so readily that very little advice is required unless it be to amateurs, and to them, unless there are proper structures and good material, forcing Asparagus is costly. Often an old bed that has seen its best days may with advantage be lifted and placed in heat and brought on slowly; indeed, hard forcing should not be attempted. A temperature of 60° is ample, but from 15° to 20° higher temperature may be allowed should there be no rapid rise, as at this date the roots soon respond to gentle forcing. I have referred to beds being lifted. This only applies to certain gardens, but roots are now specially grown by the trade and these force readily. In our own case we use a large proportion of fresh leaves in preference to large bodies of rank manure. The moist leaves suit the roots admirably. Of course all forced Asparagus at this early date is from glass structures, but even now we are busy preparing our permanent beds for cutting early in the year, and from these beds a much larger supply is maintained than from lifted roots, and the quality is excellent.

## SEAKALE.

The old but excellent system of forcing this vegetable in its growing quarters had much to commend it—though the labour entailed was greater, the quality was better. Kale forced in moist leaves or under pots is, in my estimation, far better than that forced in a Mushroom house or under stages in a drier atmosphere. I am aware that in these days, when rapid growth and larger quantities are needed, different ways have to be thought of. Still, in a private garden it should be remembered that flavour should be considered. The market garden system of placing lifted roots in trenches and forcing with treated manures gives good Kale, as the roots never suffer from dryness and the produce is very tender and succulent.

## CHICORY AS A VEGETABLE.

Many may not agree with me in placing this root as in season at this date, but it is, and a valuable one also if properly cooked. We well know that Chicory is of great value as a salad plant, but its value as a vegetable must not be forgotten.

Cultivation is simple; indeed, only very slow forcing is needed, and the edible portion consists of the young growths about 4 inches to 6 inches long just before they expand. When the roots are placed in the dark, such as in a Mushroom house, about every fortnight they will produce a regular supply, and as these are so readily grown from seed sown in the spring there will be no difficulty in keeping up a supply through the winter months. For use as a vegetable the Witloof is the strongest grower. This has a compact growth, that when cooked and served with melted butter closely resembles Seakale; the common or ordinary kind is not suitable for this purpose, consisting of thin poor growths. The Witloof and similar varieties are much used on the Continent as a vegetable.

## CELERY.

This is a most valuable winter vegetable when stewed, and in many gardens Celery could with advantage be grown specially for this purpose. Of course a white variety is most suitable, and I prefer a short thick grower. Many persons prefer Celery to Seakale, and when well served it is delicious.

## CUCUMBERS.

Until recently Cucumbers have been plentiful, and in some gardens they are grown all the year

round. I would advise their use as a vegetable, as they are agreeable when nicely served. For this purpose we grow the short kinds, such as Syon House or Sutton's Every Day Cucumber. The latter is valuable in winter.

## CELERIAC.

This is quite as good as Seakale when served as a vegetable, and being a bulbous root it needs more cooking. In Germany it is a great favourite in winter; being of sweet and nutty flavour, it is much liked, and splendid roots are grown. The plants should be grown from seed sown early in the spring, and it does not need trenches like Celery, but likes a rich soil. To get large roots give plenty of moisture, and in winter lift and store them in a cool place or in a well-drained soil. The roots winter well if covered with litter in severe weather.

## SALSIFY AND SCORZONERA

are the most valuable winter vegetables in season now. When Salsify is well grown it is worth a place as a leading winter vegetable, being preferable I think to Scorzonera. From now to March or later it adds to the list of vegetables. The roots should be lifted and stored in a cool but frost-proof shed, as if wintered in heavy soil they

## ORCHIDS.

## ORCHIDS AT ROSSLYN, STAMFORD HILL.

WELL KNOWN in horticultural circles is the name of Mr. H. T. Pitt, of the above residence. His frequent exhibits at the Royal Horticultural Society are always worthy of close attention, and the beauty, variety, and excellent culture of the plants shown may be taken as applying to the whole collection, as a recent visit to Rosslyn conclusively proved.

Though this part of London is certainly one of the most favoured with regard to climate, yet fog, smoke, &c., are very troublesome; but that an enthusiastic lover of Orchids, as Mr. Pitt, and a keen, careful observer, such as his Orchid grower, Mr. Thurgood, can overcome these difficulties is fully proved by the condition of the plants. Among the many other good things open at the present time the following are particularly worthy of note.



STAR PRIMULAS AT MESSRS. SUTTON AND SON'S, READING.

decay after severe weather. There are other roots, such as the Artichoke, that give variety. The small Chinese variety is delicious when well served. The new Sutton's White is a splendid addition; it can be cooked in various ways.

G. WYTHES.

## STAR PRIMULAS AT READING.

VERY shortly our greenhouses and conservatories will be bright with winter and early spring flowers, and amongst them the Star Primulas will find an honoured place. Messrs. Sutton and Sons, Reading, have effected a great improvement in these flowers, having produced more vigorous plants, blooms of splendid form and substance, and, above all, they have widely extended the range of colour in the Star Primulas. In early spring a house filled with these plants in flower in Messrs. Sutton's nurseries at Reading is worth going a long journey to see; some idea of their free flowering may be had from our illustration, representing one of Messrs. Sutton's houses.

## THE ODONTOGLOSSUMS.—O. HALLII CRISPUM.

The parentage of this Orchid is indicated by the name, and commands attention from its singular beauty and character. The influence of *O. Hallii* is plainly discernible in the flower, particularly in the decided toothing of the petals and the beautiful fringe around the lip, but, except that the sepals are slightly narrower than in a good *O. crispum*, the general contour of the flower is like that of the last-named species. The colouring, however, is widely different. The sepals are a clear deep canary yellow, slightly attenuated at the apices, and bearing five and six nearly confluent blotches of ruddy cinnamon. The tips of the petals are reflexed and their colour is soft canary yellow, shading to white at the centre and base. A dash of deep red-brown runs at right angles to the column base, and about twenty small spots of the same colour are aggregated centrally. The lip is very broad, with the well-defined basal shoulders of *O. Hallii* and a forked crest, the tips arranged in convolute fringed folds. The whole is in varying shades of light yellow,



except a few scattered red blotches, largest and deepest in colour midway between the tip and crest.

A fine plant of the rare natural hybrid *duvivierianum* was just opening its flowers on a well-developed spike. The parents are presumed to be *apterum* (*nebulosum*) and *maculatum*. Unfortunately it has been seldom imported and is exceedingly scarce, though its shapely white and chocolate blotched flowers are very beautiful. A beautiful form of *Pescatorei* with finely shaped flowers, round in outline and thick in substance, also attracted notice. The flowers, broadly speaking, are white, but not pure white. Though entirely without spotting, throughout each flower runs a dainty tinge of rose-lilac, very faint, but distinct enough to make the variety even more beautiful than if it had been quite white.

#### ODONTOGLOSSUM LOOCHRIENSE VAR.

A handsome form of this beautiful hybrid between *O. crispum* and *triumphans* was also in bloom, the stout spike and substantial flowers showing the advantages of good culture. The sepals and petals have a ground colour of clear yellow, shading on the margins to deep gold, the petals being much lighter than the sepals centrally. Each sepal bears two bars of confluent chocolate-red blotches, while the sepals bear four rounded but unequal spots on the apical halves. The labellum is placed on the column in the same manner as the *triumphans* parent; it is light yellow basally and on the crest, shading to white on the margins. On the apical area are one large and two small red blotches. The collection of *Odontoglossums* at Rosslyn is very rare and extensive, and much more might be said of them, as indeed of all the other sections here only just alluded to. Among

#### CYPRIPEDIUMS,

of which a very representative selection has been brought together, was a light coloured form of *C. macrochilum*, a hybrid between *C. longifolium* and *C. caudatum* *Lindenii*; it is very striking as seen here, and the long ribbon-like creamy white and rose shaded petals are charming. In this variety the dorsal sepal is almost entirely creamy white, with only a slight tinge of rose and green. The lip is marked with warm olive brown on a white cream shaded ground colour.

Two fine specimens of *C. leeanum giganteum* were observed with magnificently developed flowers, the finest the writer ever remembers to have seen. This variety still remains among the best forms of *leeanum*, and judging by these two specimens it is unlikely to lose its position.

A beautiful collection of *Cypripedium* *insigne* was in bloom, including two striking unnamed forms. One resembled *C. insigne* var. *Dulcotense*, but was far finer, and the other has very dark markings, reminding one of the finest varieties of the grand hybrid *M. de Custe*. A surprising feature of the collection is the *Phalenopsis*. London and its environments are the last places in which we expect to find these beautiful moth Orchids growing well, but here, suspended from the roof of a small house, they luxuriate, and from their clean healthy look are apparently proof against even London fogs. The plants are now full of flower-spikes in course of development, and should shortly give a splendid effect.

In another warm house was noticed the original *Dendrobium Phalenopsis* of Fitzgerald in bloom, together with its pretty ally *D. bigibbum*. A distinct form of Forbes's *D. Phalenopsis schroederianum* was also flowering; it has quite white sepals and petals

in strong contrast to a deep rose-purple labellum.

In addition to the better known and more showy Orchids, Mr. Pitt is greatly interested in the seldom seen and so-called botanical Orchids. A plant of the very rare *Cirrhopetalum appendiculatum* was in bloom with large curious insect-like flowers. This species differs from the majority composing the genus, as the flowers are solitary and not carried in umbels. The lower sepals are drawn out to a length of 6 inches or 8 inches, while the sepals and petals each bear a wonderful fringe-like plume, that on the dorsal sepal being the largest. The prevailing colours are purple and white. The once common but now rarely seen *Celogyne barbata* was also in flower, the snowy sepals and petals and black-brown hairy lips of the flowers being very conspicuous.

Mr. Pitt is a genuine amateur, loving his flowers for their own sake, apart from their rarity, but a plant must have some good points to find a place in his collection. ARGUTUS.

#### CATTLEYA MAGNEANA.

THIS splendid novelty is one of the most brilliant of the genus. It was obtained by crossing *Cattleya guttata* *Leopoldii* (a superior form) with *C. massaiana*, one of the most beautiful of the hardyana group. The leaves, some 20 centimètres long by 7 centimètres broad, are thick and tough, and of a beautiful deep green colour. The flowers, which open well, are of remarkable size; the greatest attested diameter is, indeed, 9½ centimètres. The sepals are firm, and the upper one is remarkably erect. They are of a clear ruby colour. The petals are very large, waved on the edges, and of an intensely deep ruby colour. The labellum, which is of perfect form, very large and well formed, with broad undulations, is of an intense ruby colour, deeper on the undulations. A pale tawny reflection tints the interior of the throat as well as its reverse side. The cultivation of this plant does not demand any particular care; it will thrive with the other *Cattleyas* in a house with moderate temperature.

CH. MARON, in *Le Jardin*.

## GARDENING OF THE WEEK.

### THE FRUIT GARDEN.

#### THE EARLY PEACH HOUSE.

**N**O attempt must be made to hasten unduly the development of the flower buds, as this would weaken them and prevent a good set of fruit, and as soon as they commence to unfold the syringing of the trees should be discontinued and a comparatively dry atmosphere maintained, though in fine weather the floors of the house should be damped early in the afternoon. At this stage keep a night temperature not exceeding 50°, and cause a movement of the air both night and day by keeping the top and front ventilators more or less opened in accord with the conditions of the weather. The day temperature should be maintained at 55° in dull weather, but allowed to reach from 60° to 65° from sun warmth.

#### EARLY VINERIES.

Houses containing Vines that are bursting into growth should have a night temperature varying from 55° to 60°, the higher degree being upheld in mild weather with a corresponding day rise, slight ventilation being given when the temperature assisted by the sun's warmth reaches 70°. As the growth, which makes quick progress at this stage, proceeds attend early and diligently to disbudding by removing the weakest shoots first, and completing the operation once it can be discerned which are possessed of the best bunches. Well thin the laterals so that enough only are

left to clothe the trellises with foliage without crowding.

#### MELONS.

Seeds for the first crop should now, or at an early date, be sown in 2½-inch pots. Use fine moist soil, plunge the pots in a hotbed, and cover them with a sheet of glass. No water will then be required until the seed has germinated, when the plant should be kept near the glass of a structure possessed of a night temperature of from 65° to 70°, with the usual rise by day. Preserve a moist atmosphere by syringing the plants in the morning and early afternoon of fine days, and as soon as the pots are well filled with roots plant them 2½ feet apart upon narrow ridges or hillocks of warm soil composed of turfy loam, moderately mixed with crushed mortar rubble, leaf soil, and soot.

#### QUEEN PINEAPPLES.

In order to secure a supply of ripe fruit in June, the plants rested for the purpose, as previously advised, should be started without delay. The night temperature of the house should accordingly be raised to 65°, to be shortly further increased to 70°, with a corresponding day rise, the house being slightly ventilated when the temperature reaches 80° from sun-heat, and at such times spray the plants with tepid soft water when the house is closed. The temperature of the plunging material should likewise be raised to about 85°. Slightly increase the atmospheric moisture, give the plants sufficient tepid water to moisten their soil thoroughly, and subsequently examine them weekly, and water those requiring moisture with tepid weak guano water. Keep the glass of the structure perfectly clean, and remove early suckers as they appear.

T. COOMBER.

*The Hendre Gardens, Monmouth.*

### INDOOR GARDEN.

#### BEGONIA SOCOTRANA.

BEGONIAS are charming winter-flowering plants; as they bloom nearly all winter and spring they deserve to be grown to a much greater extent than they have hitherto been. Many of these Begonias are not only remarkable for their free flowering, but also for their dwarf habit and easy culture. They delight in an intermediate temperature, all the light possible, and a tolerably moist atmosphere. Less water at the roots must be given at this season, and the plants should not be syringed overhead. Plants in bloom may be kept in a house whose temperature is 50°. The *Rex* section of Begonias, where quantities are required for covering walls in ferneries or for growing under stages, may be propagated by means of the leaves. Leaf cuttings may be conveniently rooted in shallow boxes filled with sharp sand or cocoanut fibre and placed in a propagating case. Well matured leaves should be selected, and with a sharp knife cut across the larger nerves on the under side. Then they should be laid upon the sand or fibre, using a few pieces of potsherds to keep them down. Plants *Begonia Gloire de Lorraine*, when past flowering, should have less water given them; let it be done gradually, but do not cut down until the tops show signs of decay, and then they are better if shortened back. These may be readily struck from leaves dibbled in with about an inch of the stem in cocoanut fibre and shading from sunshine till rooted.

#### FORCING HOUSE.

To keep up the supply of flowering plants—Narcissi, Tulips, Hyacinths, Lilliums, and other bulbs, also such plants as Azaleas, Deutzias, and Staphyleas—they should be brought into gentle warmth. Sudden changes of temperature are fatal to forced plants, so they should never be taken direct to the cold conservatory or house.

#### COLEUS THYRSOIDES.

This winter-flowering *Coleus* is a great acquisition to our winter-flowering stove plants. Make a good group of it and get the full effect of the lovely blue flowers. Care must be taken that it does not suffer for want of water, and where the pots are full of healthy roots weak liquid manure will be of great assistance to them. *Eupatoriums* require some-



what similar treatment. These plants if kept a little cooler when in flower will last longer in beauty.

#### BOUVARDIAS

that have ceased to flower should be allowed to rest for a month or six weeks. They should be placed in a light position close to the glass and watering be discontinued, removing all leaves as they become yellow.

#### ZONAL PELARGONIUMS

are still in the height of their beauty, and should have every encouragement given them to prolong their flowering season. Watering must be carefully done in the morning. Weak liquid manure and soot water should be given them occasionally. Let the plants have abundance of light and give air whenever possible to keep the atmosphere sweet and dry up superfluous moisture. Do not pour any extra water about the house, as damp and fog are the greatest enemies zonals have in winter.

JOHN FLEMING.

Wexham Park, Slough.

#### FORGET-ME-NOT!

BLUE flowers mirrored themselves in the brook,  
And called to the waves from their sheltered nook:

"Forget-me-not!"

The wavelets laughed, "We must haste to the sea,  
And out of sight out of mind will be,

"Forget-me-not!"

Blue eyes shone in a maiden's face,  
And stole a youth's heart from its hidden place:

"Forget-me-not!"

The youth went out in the world so wide,  
Where many a flower bloomed and died;

"Forget-me-not!"

And sailing alone o'er the starlit sea,  
There seized him a grief and a memory:

"Forget-me-not!"

From the swelling ocean arose a song  
By the drops from the brooklet borne along:

"Forget-me-not!"

E. M. M.

—(From the German of Julius Wolff.)

#### EDITOR'S TABLE.

##### ROSE MARQUISE DE SALISBURY.

"G." sends from a Middlesex garden a welcome bunch of flowers of this Rose, which, as many readers are aware, is a Hybrid Tea and deep crimson in colour. This bunch was gathered on the last day of November, and scented the room with its fragrance.

##### SWEET PEA LADY GRISEL HAMILTON.

Some time ago "R. H." sent a gathering of this Sweet Pea, which was described as "a large, beautiful lavender flower," with which remark we fully agree. It is a lovely kind, and we had the bunch photographed, though such illustrations show nothing of the beautiful colouring and fine shape of the flower.

##### A STRANGE CYPRIPEDIUM.

We have received from Mr. W. Y. Baker (of the Thames Bank Iron Company) a strange Cypripedium flower. It has a double labellum or lip, double sepals, and, though not beautiful, is very interesting to those who delight in floral curiosities.

#### GARDENING TWO HUNDRED YEARS AGO.

THERE is one household task which can never be done to satisfaction by a hireling—the arrangement of our books. When a family has been bookish for several generations it becomes no small task, and one is apt to feel impatient when plodding through closets piled with volumes which one can but conclude are mostly what Ruskin calls "books of the hour," and that their hour is long past. But now and then you light on a piece of gold among the dross—something which bears on a subject in which you are interested, or gives a quaint picture of the habits and ideas of a former generation. While dusting the back rows

of books in a long disused schoolroom lately I came upon several interesting old books, one of them a square volume bound in much-battered deep brown leather. "The Compleat English Gardener, or a Sure Guide to Young Planters and Gardeners" is the title, and it proceeds to give a *resumé* of the contents, including "The Ordering of the Garden of Pleasure, with variety of Knots and Wilderness Work after the best and newest Fashion."

It was evidently a popular work in its day, for it is "the Eleventh Edition." As to the authorship we are told it was "begun by Leonard Meager, above Thirty Years a Practitioner in the Art of gardening, and now enlarged by way of Supplement by a Lover of this Princely Diversion and Profitable Recreation. Printed for M. Wotton at the Three Daggers in Fleet St., and G. Congers at the Ring, in Little Brittain, price 4s."

There is no date on the title-page, but opposite are scrawled in faded ink a variety of names of owners of the book (none of the said names appearing in our family pedigree, I have no idea of the volume's history), and against one of these is the date 1721, which fixes the date of publication at nearly two centuries ago. "Rowland Wood," "John Roks," "Samwell Wheatcroft," "Ben Roe," "Wel Ratelles," and "M. Mosly" are the names, and there are sundry scrawls and hieroglyphics besides. There is a short preface beginning "Reader," recommending the "Compleatness" of the book, disparaging all others on the same subject, and concluding "Farewel S. G."

A list of other books sold "at the Ring" is entertaining. One I should much like to see, a forerunner of Maeterlinck, "The History of Bees, Showing their Admirable Nature, their Government, Loyalty, and Industry, Enemies, Wars, and Magnanimity, together with the right ordering of them." I wonder what the author would have thought of the "ordering" of the ten box-hives into which I have been putting great slabs of pea-flour candy this afternoon! But to return to our list.

"The Way to save Wealth; or How to Live for 2d. a Day." "The Way to get Wealth: by making twenty-three sorts of English Wine equal to French," price 1s. 6d. "Markham's Masterpiece, showing how to cure horses, and all sorts of Black and White Cattle," price 4s. "The Experienced Farrier's Jewel," 1s.

The garden is not my department, so I can make little comment on the methods of tree planting, pruning, grafting, &c., but I notice that our author speaks of "inoculating" instead of budding Roses. He gives a catalogue of the fruit trees to be obtained at "Mr. Colchester's, at the Ducking Pond, Clerkenwell Green," and other places. There are five-and-twenty different kinds of Cherries, six "Apricocks," six Figs, including "Blew-spanish": eleven Grapes, and long lists of Apples and Pears, with quaint and perfectly obsolete names. What gardener ever heard of a "Davey-gentile" Apple, or "Pig's-tale" Pear? When we come to the list of "Divers pretty flowers fit to furnish a garden" the old names are very amusing. What could "Melan-



FLOWERS OF SWEET PEA LADY GRISEL HAMILTON.

choly Gentleman," have been? "Great Blew Bindweed, or Connuvolu's Major," is more comprehensible. "Lark's-heel, or Spurs—divers varieties," "Spanish Tufts," "Ladies Smocks," "Double Sope-wort, a busie runner in a garden"—as we know to our cost—Munkshood, "Molies," "Flowerdeluces," "Bearsar sanicle," "Sultan's flower, or Turkey Cornflower," "Gilder Roses and Lelacks," and "Jersalem Cowslips," probably made a pretty show for the ladies of Queen Anne's time.

Chapter VII. is headed "Rare Curiosities in Gardening, being secrets known to very few." "To make a Sallad grow from the seed in three or four hours, fit to be cut and brought to table," sounds startling. Ashes of moss and manure were to be worked together, and dried several times in the sun, spread upon an iron plate over a slow fire, and sprinkled with warm rain water. In this you planted seeds of "Purslain or Lettice," that had been soaked in warm water "mixed with dregs of Oyl," and this very rapid crop is said to be the result. "To make Tulips and other flowers of the colour you are pleased to have them," the seeds are to be soaked in dye of the colour desired. "For black, ink; green, verdigrease; yellow, turmeric, &c., sow them in proper ground, and you will find blowing in due time a wonderful change."

"How to produce double Gillieflowers of any seed soever." Take a Bean and hollow it, put into it the seed of a single Gillieflower, and stopping the hole with a little soft wax, set it in proper ground, and a Gillieflower will spring out of it, and be double and large.

His faith in Beans seem to have been great. "To make Gillieflowers of an extraordinary bigness, you are to mix Bean-flower with the soil."

"To make a Peach tree bear with writing on the fruit." Take the stone of a good bearing Peach, bury it in suitable ground till the stone be half open, so take out the kernel gently, without breaking it, and write on it with vermilion made liquid in the beaten white of an egg, and with a pen write what you please on the kernel; then put the kernel the right way into the shell, and close it with a little soft wax as may just stick it together;



and when it produces a tree-bearing fruit, the words in a lesser or greater measure will appear on the Peaches."

Could anyone have really believed such stuff as this? Yet it is all told with such an engaging confidence and simplicity. Is it possible that a couple of centuries hence our modern books will seem as ridiculous in the eyes of posterity as this does to us?

Our gardener had a greenhouse to preserve his

plants with their bites or venomous spume, and if you perceive such marks smook it with frakincense or storax." This greenhouse was to be heated with "old coal, or charcoal," in a stone-built stove. There is a short chapter on "Prognostics, or Observations on the Moon," directing when to sow and plant.

"Prune your Vines when the moon is full, and it is held that neither bird nor insect will infest your Grapes." Would that our Roses and Strawberries could be so easily guarded from these pests!

"When the moon is in Cancer, set and sow all sorts of pulse."

"If you are desirous to have low or dwarf plants, then it is held proper to cut, set and plant in the Wain of the Moon."

Passing over the chapter headed "To order Vineyards," we come to recipes for herb teas and other medical nostrums. "The Roots of White Briony bruised and apply'd of its self to any place where the bones are broken helpeth to draw them forth, as also splinters, arrow-heads, and thorns in the flesh." "Hounds tongue is good against the biting of mad dogs, and laid on the bottom of your feet Hounds will not bark at you!"

"Mistletoe hung round the neck, Witches can have no power over you." "Mugwort worn under the soles of your feet you may travel forty mile, and not tire." (Very convenient before the days of cycles!)

"Adder's tongue cureth the biting of an adder. Viper's Bugloss is a remedy against the stings of vipers and other venomous beasts. Arrow-head is good for a wound made with an arrow." How simple it all sounds if one could but believe it! At the end of the book are twenty-four plates—one of sundry primitive-looking tools, one

of a little man in very full knickers and a long-skirted coat inoculating a tree. The rest are plans for gardens, which look more like geometric patterns for chip carving than arrangements of living plants. Some are labelled "Wilderness Worke." I suppose they are in the Dutch taste where—

"Grove nods at grove, each alley has its brother,  
And half the platform just reflects the other."

Poor old book—its day is past—its knowledge has vanished away, but it may afford a brief amusement to some readers who still find pleasure in the "Princely Diversion and Profitable Recreation" of gardening.

MAUDE ROBINSON.

*Saddlescombe, Brighton.*

### BAMBUSA TESSELLATA.

THERE are two hardy Bamboos that stand out conspicuously from all the rest because of the size of their leaves. They are *Bambusa tessellata* and *Bambusa palmata*, both of which have leaves much larger than those of any other hardy species. In *B. tessellata* the largest are 18 inches long and 3½ inches to 4 inches wide, tapering from the middle to a fine point. The upper surface is of a deep lustrous green, whilst the lower one is tinged with a glaucous hue. At one time I was inclined to consider *B. palmata* the best of the large-leaved Bamboos, but now I would give the palm to *B. tessellata*. *B. palmata* is a fine Bamboo, but it scarcely has the graceful character of the present species. Its leaves are neither quite so large as *B. tessellata* nor so tapering, its stems are taller (5 feet to 7 feet), the habit is more erect, and the longitudinal veins of the leaf are more prominent. There is a mass of *B. tessellata* in the Bamboo garden at Kew just now at its best—as green and luxuriant as it was last August. The plant measures about 12 feet across, and the main bulk of its stems and leaves is about 3 feet high, forming a dense mass, the outer stems of which arch outwards to the ground; but rising out of this mass are some of last year's spiky growths, bearing one or two leaves, and these add infinitely to the grace and distinction of the plant.

In many gardens this Bamboo used to be (and may now be) known as *Bambusa* or *Arundo Ragamowski*. This last name is the one under which it was known in English gardens more than fifty years ago. It was probably the first of the hardy Asiatic Bamboos introduced. Thanks mainly to Lord Redesdale's "The Bamboo Garden," the nomenclature of the hardy Bamboos, both in trade and private establishments, is much more satisfactory than it was five years ago.

*Kew.*

W. J. BEAN.

### MISCELLANEOUS.

**Chrysanthemum Society of America.**—Pressure on our space at this season of the year has precluded us from making any previous mention of the show and convention held in Chicago on November 12 and 13 by the above-named society. President Herrington occupied the chair, and opened the proceedings by an address, in which he reminded his hearers that the society was organised in 1889 with certain well-defined aims. After reviewing the past and giving particulars of the certificates awarded by the local committees, Mr. Herrington then pressed the claims of the future. He pointed out that the same varieties that are in the cut flower market almost wholly constitute those at the American shows, and pleaded for greater diversity and the creating of the amateur element, which in America appears to be largely lacking. Reference was also made to the system of affiliation existing here in England, and a hope expressed that the American society might in some way adopt it. Various reports were next submitted, and these were followed by a series of papers on various subjects. Only two of these were read at the meeting, one entitled "American Chrysanthemums in England," by Mr. Harman Payne, and the other at the second day's meeting was delivered by Professor Cowell on "The Colour Scheme in Chrysanthemum."



BAMBUSA TESSELLATA. (From a drawing made at Kew by H. G. Moon.)

"Orange and Limon" trees in winter. This was to have sashes on the south side, and "I approve it rather to be thatched with a thick coat of wheat-straw or fine reeds than to be tiled or slated, for though in a nobleman's or gentleman's garden it is not so sightly, yet it abundantly more keeps out the cold air." "You are to take care that no noisome insects lurk in this house to infest the



mums." The remainder were unusually numerous, and included (*inter alia*) Border Chrysanthemums, Pompon Chrysanthemums, Foreign Chrysanthemums in America, Hybridising Chrysanthemums, Chrysanthemums in America, History of the Chrysanthemum Society of America, &c., all of which were ordered to be printed in the official account of the proceedings. In the meantime, most if not all of these papers are appearing in the columns of our contemporary the *American Florist*. Indicative of the interest taken in this Chicago show and convention, it may be mentioned that the French National Chrysanthemum Society offered a gold medal for competition, and that our own English National Chrysanthemum Society would unquestionably have done likewise but for the fact that it is face to face with the difficulties consequent upon having to find a new home. The posters announcing the show were of a very attractive and artistic style, as also was the menu of the banquet offered to the visitors by the Chicago Florists' Club. It is expected that a similar gathering will take place next year at New York, where a show was also held this year in the Madison Square Gardens. Messrs. W. Wells and Co., of Earlswood, sent over some very fine blooms, which were much admired by the American growers, and were awarded a silver medal.

**Chrysanthemum audit.**—For some years past Mr. A. Taylor, a member of the executive committee of the National Chrysanthemum Society, has voluntarily taken the trouble to compile an audit of all the varieties shown in the cut bloom classes at the great November show at the Aquarium. At one time he used to give the name of each variety and the number of times that each was shown, but latterly he has unfortunately been unable to present his audit in so complete a form. This is all the more regrettable because for some years past there has been no audit of the kind, either gathered from a series of leading shows or gathered from the National Chrysanthemum Society's show, and thus based upon actual fact. There seems to be nowadays much less interest taken in the winning varieties than there used to be, for even the show reports of the past season were unusually deficient in details of this sort. Consequently those who are chiefly interested in statistical matters have not even the means to prepare an audit for their own use. At the last committee meeting of the National Chrysanthemum Society Mr. Taylor again presented his annual record, which will no doubt in due course appear in the schedule some months hence. In the meantime, however, some readers of THE GARDEN who are interested in the progress of the Chrysanthemum may like to know which way the competition in the cut bloom classes is tending, and so, for comparison, I give the results below as announced by Mr. Taylor:—

	1900.	1901.	1902.
Japanese .. ..	2,112	2,445	1,797
Incurved .. ..	864	657	471
Reflexed .. ..	60	48	24
Large Anemone ..	204	132	108
Anemone Pompon ..	24	18	12
Pompon .. ..	108	54	114
Single .. ..	24	24	18
Total .. ..	3,396	3,378	2,544

In the two last-named classes, the flowers being staged in bunches, each bunch counts as one bloom. It will be observed that the reduction in the incurved section for this year is immense. So too, of course, is it in the Anemone and reflexed sections, but they never occupied the prominent position once held by the incurves. Of course, many things may be attributed to the season. Sometimes it is too hot, sometimes too dry, sometimes too wet or cold, or early or late, and I know not what beside. But I ask of those who know something about incurved Chrysanthemums is not this reduction very largely due to the present-day practice of including big flat mongrel-bred flowers, without form or comeliness, hollow-eyed, with narrow pointed florets of evident Japanese blood in the stands that were once upon a time conspicuous for the marvellously perfect forms that were then aimed at by grower and raiser alike? And if the old-time standard of excellence

is no longer to be seen at the Aquarium are the same influences at work in the leading provincial shows? Are all the dividing lines to be broken down, and is the day fast approaching when deterioration will so far have developed that not even the greatest expert will be able to tell us the difference between one section and another, for the simple reason that they will all be merged into one conglomerate mass?—C. H. P.

**French National Chrysanthemum Society.**—The seventh annual show and congress of this society was held on November 7 last at Angers, in conjunction with the autumn show of the Horticultural Society of Maine-et-Loire. M. Viger presided at the congress, and announced that M. Dubreuil, the treasurer, and M. Gaston Clément, a well known Parisian Chrysanthemum grower, would both be included in the next list of appointments to the Order of the Mérite Agricole. On the platform there were present Messrs. Maxime de la Rocheterie, Calvat, Bruant Philippe Rivoire, the Secretary, Dubreuil, and others. One of the principal papers was that contributed by M. George Truffaut relative to certain experiments made with various chemical manures on plants of the Chrysanthemum. It was decided that next year's meeting should be held at Lille, and that the one in 1904 should either be in the south or the south-east of France. The medal for meritorious service rendered to the cause was awarded to M. Louis Lacroix of Toulouse, best known perhaps to English growers as the raiser of the variety Viviani Morel. Next day M. Chiffot read a paper on "Diseases and Parasites of the Chrysanthemum." Others equally interesting followed. It was announced that the colour chart would shortly be placed in the printer's hands. The large silver-gilt medal offered for the most interesting paper read at the congress, and which it will be remembered was won last year by Mr. Harman Payne for a paper on the introduction of the Chrysanthemum into France and Europe, was this year awarded to M. Lochot of Sophia, Bulgaria, the author of a capital little cultural manual dealing with the Chrysanthemum and other essays connected with the flower.

## SOCIETIES.

### NATIONAL CHRYSANTHEMUM SOCIETY.

ON Monday evening last the executive committee of the above society held a meeting under the presidency of Mr. Thomas Bevan. Minutes, correspondence, and a considerable amount of routine business occupied the major portion of the evening, which was a very busy and somewhat animated one. The attendance was good, owing to some suggested alterations in the rules, which were likely to have a very decided bearing on the position of the affiliated societies.

A list of medals awarded at the recent December show was read, by which it appeared that the following were made:—Large gold to Messrs. Norman Davis and H. J. Jones; small gold to Messrs. Fleming, H. Cannell and Sons; and C. Blick; silver-gilt to Messrs. Forster and Clibran; large silver to Messrs. Boyes and Co. and Cutbush and Son. A rough interim financial statement was then presented by the secretary, and was generally regarded as indicating a most satisfactory position. Up to the present receipts have come in to the extent of £922 3s. 8d., the expenditure only amounting to £763 8s. 5d., thus leaving a balance in hand of £158 15s. 3d. The accounts, however, are not finally closed, and there are still various sums of receipts and payments to be dealt with before the preparation of the year's balance-sheet.

Specimens of the society's new medal were submitted for inspection. The chairman stated that he hoped very shortly to be able to announce the sites committee's recommendation as to the place where the future shows were to be held.

Mr. A. Taylor, who for some years past has tabulated the blooms shown in the cut bloom classes, read out the result of the November exhibition, which in all sections numbered 2,544, as against 3,378 in 1901, and 3,396 in 1900. A vote of thanks was proposed, and in seconding the motion Mr. Harman Payne referred to the great statistical value of such an audit, which, being based on actual fact, was in his opinion of great value to intending exhibitors, especially if Mr. Taylor could now do as he used to do, namely, give the names of the varieties shown and the number of each.

The meeting closed with the election of new members.

### NATIONAL DAHLIA SOCIETY.

THE annual general meeting of the above society was held, by the kind consent of the Horticultural Club, in their rooms, the Hotel Windsor, Westminster, on Tuesday last, Edward Mawley, Esq., in the chair. Beyond the members of the committee only three others attended. The committee's report, read by the hon. sec., Mr. J. F. Hudson, showed that the exhibition of last autumn was the first

held by the society in London, and that in spite of a very trying and late season, which did keep some members from showing so early as September 2, yet the flowers generally were very good, and the show gave very great satisfaction. Special thanks were due to the council of the Royal Horticultural Society for the privileges afforded in relation to the show, as also for so freely placing at the society's disposal the services of the council's staff. It was shown that whilst in 1901 no less than forty-one certificates were granted to new varieties, largely Cactus forms, that this year only twenty-one were given out of no less than 119 staged, thus showing that the society was setting up a higher standard of merit than had previously prevailed. Similar arrangements as to next year's show, to be held on September 1 and 2, had been made with the Royal Horticultural Society, for which the committee were exceedingly thankful. A conference on Cactus Dahlia judging will take place on September 1. The treasurer's report showed that the total income of the year was £132 14s. 8d., and the expenditure, which included the payment of every charge, was £127 15s., leaving a balance of £4 10s. 8d. That sum had that day been materially added to.

The chairman congratulated the society on the excellent result of the year's proceedings, in spite of the risk run in moving the show to the Drill Hall. He thought and hoped that next year the attendance would be much larger. Great credit for the excellent financial position was due to the labours of the treasurer, Mr. C. E. Wilkins, strict economy being practised. If the balance was small, at least the society was free from debt. The Royal Horticultural Society's council had behaved most liberally to them, and they had found in the Drill Hall a freedom of action that did not previously exist. He hoped that great efforts would be made next year to make the society and its exhibition known, so as to greatly increase the attendance. He concluded by moving the adoption of the report, which was seconded by Mr. H. Turner, and after a short discussion it was adopted.

The election of officers and committee followed. The patrons are Sir Trevor Lawrence, Bart., V.M.H., Sir J. T. D. Llewelyn, Bart., Baron Schröder, V.M.H., the Earl of Ilchester, the Dean of Rochester, V.M.H., and Leopold de Rothschild, Esq. The patronesses are the Dowager-Duchess of Sutherland, the Countess of Pembroke, the Countess of Lonsdale, Viscountess Sherbrooke, Lady Cynthia Graham, and Miss Ellen Willmott, V.M.H. Mr. E. Mawley was re-elected president, and Messrs. J. T. Bennett-Poë, V.M.H., George Gordon, V.M.H., Thomas Hobbs, F.R.H.S., R. A. Milligan Hogg, F.R.H.S., W. Marshall, F.R.H.S., Dr. M. Masters, F.R.H.S., and J. F. Hudson, vice-presidents. The following constitute the committee, the only new name added being that of Mr. E. T. Cook: T. Antiss, W. Baxter, F.R.H.S., H. S. Bobby, F.R.H.S., H. L. Brousson, J. Burrell, F.R.H.S., H. Cannell, F.R.H.S., J. Cheal, F.R.H.S., E. T. Cook, A. Dean, F.R.H.S., F. W. Fellowes, R. Fife, F.R.H.S., W. T. Frost, F.R.H.S., J. Green, F.R.H.S., J. Henshaw, J. Hudson, V.M.H., G. Humphries, F.R.H.S., H. J. Jones, F.R.H.S., S. Mortimer, F.R.H.S., H. A. Needs, Rev. S. S. Pearce, F. W. Seale, J. Stredwick, E. F. Such, A. Taylor, J. R. Tranter, F.R.H.S., W. Treseder, F.R.H.S., H. Turner, V.M.H., J. Walker, F.R.H.S., J. T. West, F.R.H.S., and C. G. Wyatt.

Mr. J. F. Hudson having intimated that he could not continue to act as hon. secretary in consequence of the pressure of duties elsewhere, Mr. T. W. Tulloch, of Hove, Sussex, was elected to the office. A cordial vote of thanks was awarded to Mr. Hudson for his long and valued services. Mr. C. E. Wilkins was re-elected treasurer, and was also cordially thanked, as also was Mr. Edward Mawley later for his eminent services to the society as president. It was agreed that the annual general meeting be held on the third Tuesday in December of each year. A request from Manchester for an exhibition of Dahlias by the society was discussed, and remitted to the committee under certain conditions. Mr. A. Dean spoke strongly in favour of the society being formed with the Royal Horticultural Society in a trial of new Cactus Dahlias at Chiswick of varieties specially fitted for garden decoration, and Mr. Tulloch urged the consideration of his proposal in a circular issued to the members of the provision of challenge cups for both traders and amateurs for collections of Cactus Dahlias at the annual exhibitions.

### KIDDERMINSTER AND DISTRICT HORTICULTURAL SOCIETY.

#### "DIGGING AND TRENCHING."

THIS was the title of a practical and instructive address by Mr. W. H. Wilson, head gardener to John Brinton, Esq., Moor Hall, Stourport, before the members of this society on the 10th inst. Mr. C. Dalley presided over a good attendance. The lecturer dealt with his subject in a free and conversational manner, and gave the members the benefit of his practical experience acquired on a variety of soils in different parts of the country. An interesting discussion followed, and Mr. Wilson was warmly thanked for his most interesting lecture. The programme for 1903 is now being arranged, and will shortly be issued to members.

### READING AND DISTRICT GARDENERS' ASSOCIATION.

AT the last fortnightly meeting of this association Mr. W. Tribbick, of Brooke Gardens, Isle of Wight, read a most interesting and practical paper on "The Cultivation of Peaches and Nectarines." The opening portion treated of the origin, history, and most prominent characteristics of the fruits, and this was followed by cultural details under the following headings: Position, soil, time of planting, dis-budding, watering, ventilation, bud dropping, winter work in houses, manures, diseases, and varieties. A good discussion followed, in which Messrs. Hinton, Neve, Woulford, Blake, Powell, Clinch, Staaton, Alexander, Fry, and Bright took part. The exhibits were not numerous, but one was of exceptional interest, viz., a punnet of Red Currants shown



by Mr. F. Bright, of Whiteknights Park, picked on the same day from the open. The fruits were in splendid condition, of good size, and equal to those usually gathered in July. Mr. Hinton, of Walmer Gardens, exhibited several vases of single Chrysanthemums.

## ROYAL HORTICULTURAL SOCIETY.

SCIENTIFIC COMMITTEE.—DECEMBER 9.

**PRESENT:** Dr. M. T. Masters (in the chair), Messrs. Douglas, Gordon, Hudson, Veitch, Saunders, Bowles, and Worsdell, Dr. Cooke, Revs. W. Wilks and G. Henslow, hon. sec.

**Dr. M. C. Cooke, F.R.H.S.**—Dr. Masters rose and said he had much pleasure, in which he was quite sure the committee would join, in handing the gold medal to Dr. Cooke, to whom the council of the society had assigned it. Dr. Cooke expressed his thanks for the same.

**Carnation leaves rooting.**—Mr. Douglas observed, with regard to a remark of Mr. Masse's, that roots sometimes occur on the leaves when the roots were affected. That in the case of those he had exhibited the roots were perfectly sound, and he could suggest no cause for the appearance of the roots on the leaves.

**Nephrolepis tuberosa.**—Mr. Saunders exhibited some of the tubers found on the roots of this plant. They did not appear to have "eyes" or buds upon them, so as to be propagative. It was suggested that their use may be for water storage only.

**Celeriac diseased.**—Specimens were sent by Mr. Kitson, The Chantry, Netherbury. Dr. Cooke undertook to examine and report upon them.

**Hyacinth bulbs diseased.**—Mr. Saunders gave the following report upon the bulbs sent to the last meeting:—"A Hyacinth bulb, which was very much decayed, was shown at the last meeting of the Royal Horticultural Society's scientific committee. The bulb contained any number of the bulb mite, *Rhizoglyphus echinopus*, and these mites were no doubt the cause of the injury to the bulb. Besides the mites there was a quantity of a greenish mould, which I imagine only began to grow on the bulb after it had been killed by the mites. When bulbs are infested with these mites in the manner that this one was, nothing can be done, as far as I know, to save them. When only a few mites are at the base of the bulb—where the attack generally commences—they may be killed by immersing the bulbs for five minutes in water at a temperature of 115° or 120° Fahr. If some sulphide of potassium (6oz. to a pint) was added to the water, this remedy would be all the more efficacious; indeed, it is said that soaking the bulbs in this solution cold for twenty minutes will kill the mites. It is very essential that any of the soil from pots which has contained bulbs infested by this pest should not be allowed to get mixed with fresh soil on the potting bench or elsewhere." Dr. M. C. Cooke added the following observations:—"Such a profuse crop of saprophytic moulds, as *Penicillium*, that they effectually mask the disease, whatever it may be, and there are plentiful *Acari* present."

**Dictamnus Fraxinella.**—Mr. Bowles referred to the germination of the seeds of this plant, as they were sown as soon as ripe, but did not germinate. Mr. Wilks observed that the seeds will not germinate if kept any time out of the ground, so that it was thought they may have been overwatered. Mr. Wilks added that the best procedure is to sow them at once in a pan with a tile over it touching the earth till required to be planted out.

**Physiological experiment.**—Mr. Henslow described an experiment he had carried out with two objects in view. The first was to ascertain if darkness had any effect upon the direction of growth of roots. He grew some Mustard on a perforated tin over a glass of water, the latter having black paper pasted all over it, excepting a narrow strip facing the light, which could fall upon the roots in the water. They, however, grew vertically downwards, uninfluenced under these conditions by either light or darkness. The second object was to see if water arrested the growth of the primary root, as in a paper on "A Theoretical Origin of Monocotyledons from Aquatic Dicotyledons" (Journ. Linn. Soc., vol. xxix., page 486), he had inferred from the great number of coincidences, both in morphology and anatomy, that such must have been the case. One such agreement was the total arrest of the axial root in all Monocotyledons and also in aquatic Dicotyledons, as Ranunculus aquatilis, Tripa, Ceratophyllum, Victoria regia, &c. Such proved to be the case with Mustard. The conical extremity of the tap-root became brown and died, while strong secondary roots with root-hairs arose from the pericycle of the point just above the dead apex. This experimental verification thus corroborated the above induction.

## NATIONAL AURICULA AND PRIMULA SOCIETY.

The annual general meeting of the supporters of this society took place at the Horticultural Club, Hotel Windsor, on the 13th inst., Mr. E. Colby Sharpin, one of the vice-presidents, occupying the chair, there being a fair attendance. The annual report, presented by the secretary, Mr. T. E. Henwood, set forth that the exhibition in the present year was one of the largest ever held, and that the sum of £11 6s. was paid in prizes in excess of those of the previous year, so good was the competition generally. Eight members have lapsed through death and other causes, among them one subscriber of £5, but ten new members had been added. As the balance in the hands of the treasurer is small a reduction in the prize money was recommended in order to remove any danger of the balance in hand being wiped out next year. The balance-sheet showed an income of £92 6s., including £21 13s. 6d. brought over from last year. The expenditure had been £85 19s. 4d., which included £19 12s. paid as prize money, a balance in the hands of the treasurer of £6 6s. 8d. being carried forward. The report and balance-sheet were adopted. Some reductions in the amounts of the prizes in several classes were made to the amount of £8, this being deemed

inevitable in the face of the society's reduced balance. In the course of revising the schedule of prizes it was announced that class 10 for six green-edged Auriculas in not less than three varieties and not more than two of one variety, would read grey edges instead of green edges. Some conversation took place as to the pin-eyed character of some of the new varieties of alpinas, and it was reported that on the occasion of the Midland Auricula show at Birmingham this year a resolution was passed affirming the importance of the judges of Auriculas asserting the old principle that a protruding style should be a disqualification. Class 31 was made to read, instead of a basket of Primroses and Polyanthus, a collection staged on a table space of 4 feet by 3 feet, the plants in or out of pots. Sir John T. D. Llewellyn, Bart., was re-elected president, and the vice-presidents were re-elected, with the addition of the name of Mr. J. W. Bentley, Stakehill, Manchester. Messrs. F. A. Wellesley, J. Sargent, and S. Mortimer were elected on the committee, and Mr. T. E. Henwood was re-elected hon. secretary and treasurer, with many thanks for his valuable services to the society. A vote of thanks was passed to the chairman for presiding.

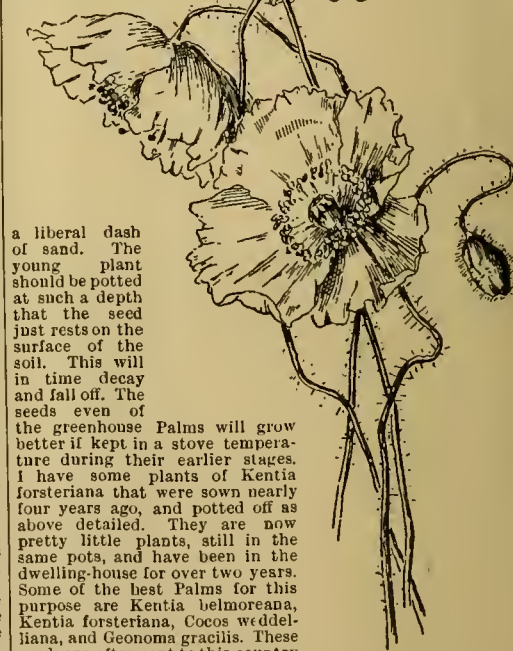
## NATIONAL CARNATION AND PICOTEE SOCIETY.

The annual general meeting of the members of this society took place at the Horticultural Club, Hotel Windsor, on the 13th inst., Mr. E. Colby Sharpin, the chairman of the committee, presiding, in the absence of the president, Mr. Martin R. Smith, who, it was reported, is abroad for the benefit of his health. There was a good attendance of the leading supporters of the society, including Messrs. F. A. Wellesley, E. Charrington, H. Turner, A. W. Jones (Birmingham), A. J. Rowberry, C. Black, W. L. Walks (Reading), J. Sargent, &c. The annual report set forth that the society was in a thoroughly sound and satisfactory character, and though 45 members had been lost to the society during the year from death and other causes, 47 new members had been obtained, being two to the good. In view of the balance in hand having been reduced in 1901, the prize money offered in 1902 was reduced in a few particulars, with the result that the income had exceeded the expenditure by £6, although a considerably larger sum had been paid for printing, owing to the demand made for copies of the annual report for 1902, which included a report from Mr. M. R. Smith on "Manuring Carnations," and this had necessitated a reprint of the paper and schedules. The balance-sheet showed that, including the sum of £119 10s. 6d. brought over from last year, the total income for the year was £358 11s.; subscriptions amounted to £229 6s. 6d., the expenditure included £128 11s., paid in prizes, printing, &c., £58 7s. 5s., leaving a balance in hand of £125 15s. 10d., a statement which was considered very satisfactory. Mr. Martin R. Smith was re-elected president, the names of Messrs. M. Rowan (who is retiring from the committee on account of ill-health, and who was alluded to by one speaker as "the Grand Old Man of Carnation culture") and V. Charrington were added to the vice-presidents, and a proportion of the outgoing members of the committee, with the exception of two or three who had resigned, were re-elected, together with new additions in the persons of Mr. A. J. Rowberry and J. J. Sheldon. The floral committee were also re-elected, with the exception of Mr. Weir, who retires; and new members were added in the persons of Messrs. W. Spencer, jun., and E. Charrington, the number being increased to seven.

A communication was read from Mr. E. J. W. Grieve to the effect that, having regard to the financial position of the society, the pruning knife should be applied to the schedule of prizes and the number reduced to two only in each class. He also made complaint that the judging in Division IV. at the last show was bad, prizes having been awarded to dressed flowers which were staged as undressed blooms, and suggested that every encouragement should be given to undressed flowers, especially in the interests of amateurs who are not skilled in the art of dressing, and that the use of cards and collars should be disallowed. It was agreed that the attention of the judges should be given to the close examination of the calyxes; and the following addition to the regulations was adopted: "There must be no manipulation of the calyx; a split calyx will be a disqualification." It was further resolved that in Classes 10, 24, and 34, the words "Carnations, selfs and fancies," should read "Selfs, fancies, and yellow grounds," the term Carnations being deleted. It was suggested that application be made to the Royal Horticultural Society for permission to have small supplemental exhibitions of Carnations at the Drill Hall; and it was agreed that if it can be arranged one exhibition should be held a fortnight before and a second a fortnight after the annual exhibition of the society, which is fixed for July 21, 1903. A new class is to be added to Division IV., to follow Class 33, for three blooms each of six varieties, shown in bottles, the wording to be the same as in Class 10; and five prizes were allotted, as also the points the blooms would carry. An additional class was framed to follow the foregoing for single blooms of selfs of any colour, prizes and points being also allotted. The two last prizes in the classes in Division IV. were withdrawn to supply the prize money in the new classes. The method of awarding certificates of merit to new varieties came in for some sharp criticism, and on the motion of Mr. F. A. Wellesley, seconded by Mr. A. W. Jones, it was resolved that "The granting of certificates of merit shall be the work of the floral committee, and it shall be an instruction to that committee that when awarding certificates the variety shall also be classified. The judging of new varieties to take place after the judges' luncheon." It was understood that application would be made to the Royal Horticultural Society for a table to be set apart at which the floral committee would sit, and all new varieties would be brought to the table. No one but the members of the floral committee would be permitted to be near the table at the time. It would obviously be a great advantage to the representatives of the gardening Press if awards to new varieties were made before and not after luncheon. The proceedings concluded with a hearty vote of thanks to the chairman for presiding.

## ANSWERS TO CORRESPONDENTS.

**Palms from seed (SPROUGHTON HOE).**—It is quite possible to grow Palms from seed; indeed, that is the only method available for increasing this class of plants. The best way to get pretty little plants in 2½-inch pots is to sow the seed in a pot or pan, and as soon as the first leaf is about an inch long put them singly into 2½-inch pots. A good soil is one-half yellow loam to an equal amount of peat or well-decayed leaf-mould, and



SHIRLEY POPPIES.

a liberal dash of sand. The young plant should be potted at such a depth that the seed just rests on the surface of the soil. This will in time decay and fall off. The seeds even of the greenhouse Palms will grow better if kept in a stove temperature during their earlier stages. I have some plants of *Kentia forsteriana* that were sown nearly four years ago, and potted off as above detailed. They are now pretty little plants, still in the same pots, and have been in the dwelling-house for over two years. Some of the best Palms for this purpose are *Kentia belmoreana*, *Kentia forsteriana*, *Cocos weddelliana*, and *Geonoma gracilis*. These seeds are often sent to this country in large numbers, but the reason that they are seldom mentioned in nurserymen's catalogues is, that they retain their vitality for but a short time, and consequently need to be sown as soon as possible after arrival. A note to any of the principal nurserymen will ensure a list of Palm seeds that they have in stock, or when others may be expected. H. F.

**Shirley Poppies (P.).**—You must sow seed of these in spring, and sow thinly. Get the seed from a good source.

## QUESTIONS.

**The use of climbers.**—In a recent issue of THE GARDEN, your correspondent "E. K. R." discourses pleasantly of the beauty of climbers planted so as to "fling their wreathed wealth of blossom" in "free life among the branches of a growing tree." We shall all agree. But will he or you tell us how it is done? I for one have tried a good many times with strong-growing Roses and Honeysuckles and such like so far without success. Plant your climber close to the stem of the growing tree, and it is starved by the tree roots and weakened by lack of sun. Plant it outside the sweep of the boughs and it has to be guided upwards with an elaborate arrangement of Hop-poles or fishing-rods, and its lower length is not only bare and unsightly, but an awkward block on the lawn. Is there a better and safer middle way, and if so, what?—DUNDEE RAMBLER. (Would some reader who has grown Roses against trees kindly help our correspondent?—ED.)

## BOOKS, &c., RECEIVED.

*The Englishwoman's Year Book* is in its twenty-third year, and is edited by Emily Jones, organising secretary to the National Union of Women Workers of Great Britain and Ireland. It is an excellent publication. It is published by Adam and Charles Black, Soho Square, price 5s.

*Kew Bulletin of Miscellaneous Information.*—We have received Appendix I. for 1903. It contains a list of seeds of hardy herbaceous plants and of trees and shrubs which for the most part have ripened at Kew during 1902. These seeds are available only for exchange with botanic gardens and with regular correspondents. No application, except from remote Colonial possessions, can be entertained after the end of March.























